



ENVIRONMENTAL ASSESSMENT BOARD

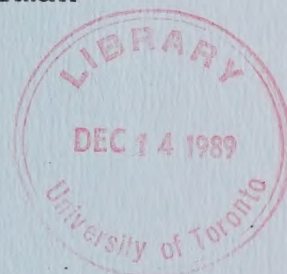
VOLUME: 165

DATE: Tuesday, December 5th, 1989

BEFORE: M.I. JEFFERY, Q.C., Chairman

E. MARTEL, Member

A. KOVEN, Member



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HEARING ON THE PROPOSAL BY THE MINISTRY OF NATURAL
RESOURCES FOR A CLASS ENVIRONMENTAL ASSESSMENT FOR
TIMBER MANAGEMENT ON CROWN LANDS IN ONTARIO

IN THE MATTER of the Environmental
Assessment Act, R.S.O. 1980, c.140;

- and -

IN THE MATTER of the Class Environmental
Assessment for Timber Management on Crown
Lands in Ontario;

- and -

IN THE MATTER OF a Notice by the
Honourable Jim Bradley, Minister of the
Environment, requiring the Environmental
Assessment Board to hold a hearing with
respect to a Class Environmental
Assessment (No. NR-AA-30) of an
undertaking by the Ministry of Natural
Resources for the activity of timber
management on Crown Lands in Ontario.

Hearing held at the offices of the
Environmental Assessment Board, 2300 Yonge
Street, Suite 1201, Toronto, Ontario, on
Tuesday, December 5th, 1989, commencing at
9:00 a.m.

VOLUME 165

BEFORE:

MR. MICHAEL I. JEFFERY, Q.C.	Chairman
MR. ELIE MARTEL	Member
MRS. ANNE KOVEN	Member



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I N D E X O F P R O C E E D I N G S

<u>Witness:</u>	<u>Page No.</u>
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I N D E X O F E X H I B I T S

<u>Exhibit No.</u>	<u>Description</u>	<u>Page No.</u>
972	Witness statement of Dean Gordon Baskerville.	29276
973	Volume of transcript excerpts pertaining to Dr. Baskerville.	29300

1 ---Upon commencing at 9:05 a.m.

2 THE CHAIRMAN: Good morning everyone.
3 Please be seated.

4 Ladies and gentlemen, before we commence
5 I just wanted to advise you that we are planning today
6 to take a very late lunch, although we will take breaks
7 up until that period. We would like to break for the
8 lunch hour today at quarter to two until about a
9 quarter after three to accommodate another matter that
10 one of the members has to attend to during that time
11 period.

12 So that we will certainly break, and
13 perhaps around the noon hour we will break for a half
14 hour or something so everybody can go and get a quick
15 sandwich if they want. We apologize for the late
16 lunch, but it's unavoidable today.

17 Are there any other matters by way of a
18 preliminary nature before we start?

19 (no response)

20 Very well. Mr. Turkstra, we are ready.

21 MR. TURKSTRA: Thank you.

22 DR. GORDON BASKERVILLE, Resumed

23 CONTINUED DIRECT EXAMINATION BY MR. TURKSTRA:

24 Q. We are at Volume 5, Dr. Baskerville?

25 A. Yes, sir.

1 MR. TURKSTRA: And, Mr. Chairman, we are
2 now going to turn to the audit itself and you might
3 want to have that, that's Exhibit 16.

4 What I propose to do, Mr. Chairman, was
5 to just take Dr. Baskerville very briefly through the
6 highlights of the audit and then ask him to summarize
7 his conclusions for you at the end of that.

8 Q. And I'm going to skip the
9 introduction and ask you to turn to page 8, Dr.
10 Baskerville.

11 And I understand the heading Objectives
12 is your implementation of what you were talking about
13 yesterday about objectives, and I noticed in the fourth
14 paragraph of that that the forest management agreement
15 holders are referred to in your audit as having an
16 analysis of the futures, and then there is a reference
17 there:

18 "There was evidence of thoughtful
19 approaches towards maximizing the volume
20 return...but since none of these analyses
21 fit the standard planning form they are
22 not in the plans."

23 The planning form you are referring to
24 there is the Ministry planning form?

25 A. Yes, the basic structure as laid down

1 in the manual.

2 Q. But when you did your audit, like
3 when you say 'the FMA holders', that would be the
4 mills?

5 A. Yes, large industrial holders. There
6 were three; one was Abitibi-Price and Domtar and Great
7 Lakes.

8 Q. And then on the next page halfway
9 through the first paragraph the sentence starts:

10 "As will be seen, the design procedures
11 ignore the implied even-flow objectives
12 and deal exclusively with age-class
13 structure."

14 And you dealt with that yesterday, and
15 you go on to say:

16 "This does not appear to create
17 difficulties on Crown Management
18 Units..."

19 Skipping a line:

20 "...but it was clear on each of the FMA
21 Units that the company desired even-flow
22 of raw materials to be maintained during
23 the conversion to a balanced age-class
24 structure. In these cases there was a
25 more or less serious inconsistency within

1 the objectives."

2 Is that inconsistency between the FM
3 holders and the Ministry, or who you were referring to
4 there in terms of inconsistency?

5 A. The principal objective in the
6 management plan as described according to the manual
7 was to build a balanced even-aged forest and the
8 principal objective from the point of view of an FMA
9 holder is to have a consistent flow of raw materials of
10 the quality he wants at the cost he can afford.

11 So there were on occasion inconsistencies
12 there and it was clear that the FMA holders had in fact
13 carried out volume analyses for or consistent with the
14 area regulation approach so that they could rationalize
15 the two themselves.

16 Q. In the next paragraph you refer to:
17 "The objectives were largely stated
18 independently of the available or
19 potential markets."

20 The objectives in that sentence is a
21 reference to whose objectives?

22 A. The objective as stated in the
23 management plan. I tended not to relate to markets or
24 to a more than really lip service to the existence of
25 markets as a controlling feature in the amount of wood

1 that would actually be harvested from year to year.

2 Q. And then the concluding sentence in
3 that:

4 "In absence of local markets to consume
5 this raw material, these objectives are
6 hollow and unattainable before the fact."

7 The word 'objectives' in that sentence
8 again would be the objectives in the plan?

9 A. The objectives as they appeared in
10 the management plan document.

11 Q. And then in the next paragraph, the
12 first sentence:

13 "None of the woodflow objectives were
14 stated in a sufficiently explicit way
15 that they could be defaulted in any
16 realistic sense."

17 Again are those the Ministry's management
18 plans objectives?

19 A. Exactly. The objectives referred to
20 in this section are the objectives as I found them in
21 the six management plans that I reviewed.

22 Q. And you concluded then that all or
23 none of the objectives can be claimed to be met?

24 A. Yes. They were stated in a way that
25 would allow the person to claim they had been met and

1 someone else to claim they had not been met and for it
2 to be impossible to determine which was correct.

3 Among students, Mr. Chairman, we refer to
4 it as the lefty Gomez law; if you don't throw it they
5 can't hit it. A student will tend not to give us the
6 answer in a form explicitly enough that we can say it's
7 right or wrong. These things tend accidentally to
8 follow that same sort of pattern, where it would be
9 very difficult to tell -- it's better to put it the
10 other way, it would be equally plausible to argue that
11 they had been met or not met.

12 Q. And does that relate to what you were
13 saying yesterday about accountability at the unit
14 level?

15 A. Exactly.

16 Q. Then the bottom of that page the
17 paragraph beginning:

18 "All plans contained objectives..."

19 Again, are you referring to the
20 management plans of the Ministry?

21 A. Yes, the management plans prepared in
22 accordance with the plan, whether it was for the FMA or
23 a Crown management unit.

24 Q. And the next sentence:

25 "The absence of response measures for the

1 non-timber uses of the forest means that
2 it is not possible to evaluate progress."

3 You may have covered that yesterday, but
4 in terms of response measures, can you indicate to the
5 Board what you meant by that?

6 A. The measures of production, something
7 equivalent to the production of timber or the
8 equivalent to the regulation of the forest by balancing
9 an age-class structure, some measure that allowed it to
10 make it possible to determine whether progress was
11 being made and to what degree it was being made.

12 Q. And then on page 10, the first
13 paragraph, you refer to the conflict between rapid
14 normalization of forest structure --

15 THE CHAIRMAN: Just one moment, Mr.
16 Turkstra. Just going back to that last question, Dean
17 Baskerville. You're talking about the non-timber
18 objectives and the lack of response criteria or
19 indications of response contained so as to measure the
20 progress on meeting those non-timber objectives. You
21 are talking there; are you not, within the timber
22 management plan?

23 THE WITNESS: Exactly.

24 THE CHAIRMAN: But what about the fact
25 that non-timber objectives may or may not also be

1 stated in other resource plans, like a wildlife plan or
2 a fisheries plan and those objectives may be met in
3 accordance with those other plans?

4 In other words, the way that this
5 Ministry appears to organize themselves they do not
6 deal with all of the resources out there within a
7 timber management plan, but they have other management
8 plans and other management programs to deal with some
9 of the other resources.

10 And from what you are saying, it doesn't
11 necessarily mean that some of those objectives are not
12 being met with respect to the other types of resource
13 plans that the Ministry has with respect to non-timber
14 resources, or does it?

15 THE WITNESS: No, that is a fair
16 statement. I agree that it is -- at least the
17 potential exists that someone else's objectives could
18 be met, but it wouldn't be reported or show in the
19 plan.

20 What doesn't show in the plan, or in the
21 structure is any feedback from the other that would
22 say: If it is not being met, here is how to change,
23 here is what needs to be done in order to improve it.

24 THE CHAIRMAN: Or here is where it is
25 being met--

1 THE WITNESS: But it won't show, neither
2 of those appear.

3 THE CHAIRMAN: --in the plan.

4 THE WITNESS: The format is one that if
5 these actions are taken, then there is conformance to
6 the other needs and presumably then someone else is
7 taking care of whether the other needs are -- the
8 objectives are met.

9 THE CHAIRMAN: Okay.

10 MR. TURKSTRA: Q. Does that tie in with
11 the moose hotel incident that you said yesterday?

12 A. Yes.

13 MR. MARTEL: The fact that on the
14 planning team that they now have there is a biologist
15 as part of that planning team, would that not link it
16 together in some form?

17 THE WITNESS: It certainly does. That is
18 not quite the same question that the Chairman asked,
19 with respect. But with that planning group sitting
20 there there is, in effect, a form of integration that
21 occurs when the plan is prepared because they all must
22 sign it. So, in effect, all of them have signed it off
23 as being acceptable before it leaves the district.

24 So there is in the system that was being
25 put in place at the time the audit was done an

1 acceptance that the plan constitutes adequate
2 integration.

3 MR. MARTEL: But at the time you were
4 doing your audit that was non-existent?

5 THE WITNESS: Just being introduced.

6 MR. TURKSTRA: Q. Dr. Baskerville,
7 assuming that integration at the plan level and looking
8 at what was being put into place when you were working
9 on the audit, does that meet the advice that you have
10 given with regard to accountability as to whether or
11 not in fact the moose use the hotel in terms of the
12 feedback?

13 A. Not really. The issue here is
14 whether or not - if I have understood the question
15 correctly - the agreement, however it is reached, is
16 reached in a format that provides accountability for
17 the people who signed to be held and compared: Did you
18 get what you expected to get.

19 And I saw no evidence of feedback that
20 would, in fact, take what they believed they were going
21 to get and compared it to what they actually got over
22 time, which is the crucial element for accountability.

23 THE CHAIRMAN: So are you saying, in
24 effect, it is a monitoring type of deficiency that you
25 are identifying. It's not that the objectives are not

1 there, it's not necessarily that they are not doing
2 something about it, it's that there is no way to tell
3 whether what they did accomplishes or meets the
4 objective or doesn't meet the objective?

5 THE WITNESS: I think that is a fair
6 statement. The objectives are there, but most of us
7 always have objectives, the issue is whether or not
8 they got written down so that they were transparent to
9 someone else, and whether they were stated in a way
10 that would allow someone else to object - I won't use
11 that phrase again - to judge them from standing aside
12 as to whether or not there had been a meeting of the
13 objectives with the real world.

14 MR. TURKSTRA: Q. On the next page there
15 is a reference to the:

16 "...conflict between rapid normalization
17 of forest structure and even sustention
18 of industry is serious."

19 The reference to normalization of forest
20 structure is that the age-class.

21 A. That is the creation of a balanced
22 even-aged structure, the nice standard format.

23 Q. In the next paragraph there is a
24 reference to objectives being general to the extent
25 that they could be transferred to any area of forest in

1 Canada:

2 "The objectives were at best loosely
3 related in any explicit sense to the
4 Management Unit in question, to the
5 unique characteristics of its forest, nor
6 to the industrial and other demands
7 placed on that particular forest."

8 Does that observation relate in any way
9 to the issue of accountability?

10 A. Yes, in the sense that a statement
11 that this forest will be managed for the sustention of
12 the local industry and the betterment of the local
13 population for use of recreation while recognizing
14 constraints with respect to wildlife, habitat and so
15 on, if you write an objective like that, you could
16 plant that literally in any forest anywhere in the
17 country. It would not be in any way unique to this
18 forest with its particular structure, its particular
19 wildlife species, its particular tree species, and its
20 particular managers.

21 THE CHAIRMAN: But if you did not have
22 such a general objective in addition to other more
23 specific ones, would there not be criticism of the fact
24 that the general objective was not there either?

25 THE WITNESS: Yes. I think you can get

1 lost in the detail of the thing. I guess what I would
2 like to see is argument not about whether or not some
3 vague objective has been met, but to get past the vague
4 objective and say: What we want to do is sustain
5 timber, and get to the argument of whether we are
6 sustaining volume or quality, or some combination of
7 the two and at what level.

8 There are an infinite number of possible
9 solutions in each of these, and the argument should be:
10 At what level are we trying to do this; not, vaguely,
11 are we doing it.

12 THE CHAIRMAN: Okay. But do you feel
13 that in a timber management plan the objectives should
14 be stated with the emphasis on objectives relating to
15 timber, either sustaining timber production or
16 sustaining a particular species, or something like
17 that, with the other objectives for non-timber uses
18 also being stated but taking a secondary place; or do
19 you feel that other non-timber objectives should be
20 given as much prominence, if I might put it that way,
21 as timber objectives, bearing in mind it is a timber
22 management plan we are dealing with?

23 THE WITNESS: Mm-hmm. You asked how I
24 felt. I guess my preference would be that since the
25 activity we are talking about is changing the

1 structural pattern of a forest over time, we are
2 talking about harvesting and treating which is going to
3 change pattern in the forest, then it would seem
4 prudent to gather as many of the things that are
5 influenced by that pattern together at once when you
6 are making the -- when you are deciding how you are
7 going to control it for one of those characteristics.

8 To go back to your question: Could you
9 do it for timber alone? Yes, you can; in fact, that is
10 what it does, it designs the plan for timber management
11 and then constrains that plan for other things.

12 THE CHAIRMAN: And is that an appropriate
13 approach as far as you are concerned?

14 THE WITNESS: I would say, no, that it
15 is -- yeah, I'll say no. The appropriate to me -- it's
16 possible. It's one that would have been appropriate
17 ten years ago, but not appropriate today when I believe
18 that the skills are emerging where we can, in fact, do
19 the integration and make an honest effort to ensure
20 that we have moved beyond constraint.

21 THE CHAIRMAN: Okay. Again, Mr.
22 Turkstra, I do not want to belabour this.

23 But I am having difficulty with your
24 evidence which says 10 years ago you wouldn't have even
25 imagined that things would have changed to the extent

1 that they are today, and you think we have some of the
2 tools to move towards this integrated approach that you
3 discussed yesterday, but we are not there yet, you
4 would like to see movement towards that.

5 But what do you do in 1990, or late 1989;
6 you are not there yet, you don't have the databases in
7 place that will allow you to do what you might be able
8 to do 10 years down the road, where do you draw the
9 line? How do you construct a timber management plan
10 today if you can't do the degree of integration that
11 you would like to see happen?

12 THE WITNESS: Yes.

13 THE CHAIRMAN: Like, how do you fit it
14 into the actual practical problem facing any designer
15 of a timber management plan today faced with this
16 interregnum of data collection in terms of you are not
17 where you would like to be yet except you don't want to
18 stagnate, so to speak, and just deal with the
19 constraint principle?

20 THE WITNESS: The crucial thing here is
21 that we lack data and that I believe that if we left it
22 the way it is, this business of integration the way it
23 is, for 10 more years we would find that we lacked
24 exactly the same sorts of data; that we are out there
25 gathering data, but not on the crucial things that

1 would relate to integration because nobody is trying to
2 integrate.

3 I think that if you look historically at
4 what has happened with our ability in this country to
5 forecast timber supply it stems from starting and
6 drawing yield curves when none existed, quite literally
7 none existed.

8 In the New Brunswick case five people sat
9 down and essentially drew the first set of yield curves
10 and then we went to industry and said: We know that
11 you've got cut records and a whole whack of data that
12 you could calibrate those and we will shift them, let's
13 discuss how they are, but in the end we are going to
14 use these and we are going to make the first cut.

15 Now, there is in the order of half a
16 million dollars a year being spent on getting good
17 yield curves, but I don't think anybody would have
18 spent money on yield curves if, in fact, somebody had
19 not started to use them.

20 To come back to your question, I would
21 still urge that a beginning be made to attempt to
22 integrate because if you don't you still have the
23 presumption that you know those things. When you say
24 that you have met the necessary conditions for the
25 maintenance of a moose population by doing something,

1 therein lies a presumption that there is a cause/effect
2 connection between what you did and the moose
3 population.

4 Now, it strikes me that the fastest way
5 for us to learn is to write that presumption down in a
6 way so that others can challenge it. Those things are
7 cloaked now, it is impossible to detect what the
8 cause/effect connection is in terms of constrained
9 action in timber to any of the other elements.

10 THE CHAIRMAN: Would you do it in a sort
11 of step fashion; for instance, to pick a specie and try
12 to do the integration with the specie about which you
13 know a lot, and then move from the one specie to two,
14 three, four and so on?

15 THE WITNESS: Yes.

16 THE CHAIRMAN: In other words, start with
17 something where the data is there as much as possible -
18 it needs to perhaps be upgraded, but at least you have
19 got something - and then slowly build upon that
20 knowledge until you can encompass more and more of what
21 you are trying to integrate. That is the way you would
22 start?

23 THE WITNESS: That is exactly right.

24 If you don't force the issue, if the
25 issue is not forced, leave data collection to academics

1 and scientists. What we do is we collect a piece of
2 data on something that is very precise, so that we can
3 publish it in the literature, and if you think about
4 it, on a half a million hectares the last thing we need
5 is decision, what we need is accuracy in the sense of
6 reflecting a spacial pattern so that the kinds of data
7 that appear in the literature -- if you sit down to try
8 and make a population dynamics model of any of our
9 wildlife species, it is a real problem.

10 Tremendous literature, but the things
11 that have been measured don't take into account spacial
12 pattern; they're averaged or they're -- whichever way
13 you want to look at it, they're either one animal or an
14 average population, but ignoring spacial pattern.

15 The way to get out of those boxes, I
16 think the experience of timber supply analysis shows,
17 is to start. The presumption is there that you know no
18 matter how you do it, so get the presumption out in the
19 open where it can be challenged.

20 THE CHAIRMAN: Would you start with
21 wildlife and perhaps fisheries, and then move to some
22 of the other uses of the forest that might be even less
23 precise than what you know about those?

24 THE WITNESS: The aesthetic things are
25 more difficult to deal with. I think I would start

1 with a couple of wildlife species or guilds.

2 MR. MARTEL: What do you believe the
3 Ministry means when it says it practises integrated
4 resource management then?

5 THE WITNESS: My interpretation of what
6 they mean is that they build a timber management plan
7 and constrain that timber management plan so that it
8 reflects all of the constraints that are required by
9 the other users, yes.

10 MR. MARTEL: That flies in the face of
11 what you believe integrated resource management means,
12 in that you don't want constraints practised, you want
13 to put it altogether in your initial plan?

14 THE WITNESS: I would be a little
15 cautious with that. We will never get away from
16 constraints completely, but I would like to see us move
17 more towards active control of the intervention rather
18 than trying to constrain only.

19 What is being done -- the description of
20 integration that I read in the undertaking, for
21 instance, would pass for integration in most provinces.
22 Yes, that is what we want to do, we want to get the
23 best mix for the people who own the resource of the
24 benefits in terms of jobs, benefits in terms of wages
25 and taxes and so on, plus benefits in terms of hunting

1 success, fishing success, and aesthetics.

2 The issue is how do we find -- how would
3 we know that if we ever saw it, maybe we got it and
4 don't realize that this is it. How do we find
5 something that tells us when we need to change? And
6 the approach that is currently used. I think in most
7 jurisdictions in this country, if not all, is one of
8 constraint.

9 THE CHAIRMAN: Do you feel that if you
10 continue to use a constraint approach that nevertheless
11 you could afford the degree of protection for other
12 resources as a result of the activities, the timber
13 activities so as to be relatively assured that there
14 isn't going to be wide-spread degradation that won't be
15 noticeable so that you can take some action to further
16 prevent a problem once you have identified it?

17 In other words, I am not suggesting that
18 your other approach is not as good an approach or a
19 better approach, but given the fact that you are stuck
20 with the approach that we have got and that is
21 practised in other jurisdictions across Canada and
22 elsewhere, does it still afford a reasonable degree of
23 protection in terms of negative environmental impacts
24 on other resources?

25 THE WITNESS: It is the, for me, total

1 impossibility to answer that question that I find
2 frustrating, because there is no assessment or
3 evaluation of the effect -- direct effect of timber on
4 those other things only of whether or not the
5 constraint has been put in place, I have no way of
6 knowing whether or not we have the constraints anywhere
7 nearly as severe as they should be, or maybe they are
8 too severe.

9 The presumption is that if we take this
10 action by leaving this width of timber reserve along
11 the stream that we have, in fact, achieved some
12 protection; but since there is no measure of what it is
13 that is protected, what damage has been prevented in
14 the forecast, I find it very difficult to answer your
15 question.

16 THE CHAIRMAN: But there was something
17 obvious in terms of a negative environmental defect, do
18 you not feel it would be at least--

19 THE WITNESS: Bulldozing a stream, yes.

20 THE CHAIRMAN: --observable?

21 THE WITNESS: Yes. There are some.

22 THE CHAIRMAN: Okay.

23 THE WITNESS: Obviously we don't want
24 bulldozers building fiords.

25 THE CHAIRMAN: So you are saying,

1 effectively, that you can't perceive or measure the
2 less obvious effects because you really don't know
3 whether or not whatever measures you have put in place
4 are really preventing impacts from the activities for
5 which you're regulating?

6 THE WITNESS: One of things that would
7 trouble me is - the wildlife one may be an easier one
8 to look at - the construction of a balanced even-aged
9 forest will result in one generation of the old forest
10 being harvested and all the part that isn't reserved
11 for some reason or other; anything that is in the MAD
12 base will in fact, in theory at least, in one rotation
13 be harvested.

14 Now, obviously it would be dumb to start
15 at one side of the forest, cut the first year's worth,
16 then the next year's worth, so that all of the
17 cut-overs were side by side as you marched across the
18 forest and R years later you come back here.

19 You would want them spread around because
20 the road systems and the mills are spread around, and
21 we would want them spread around because of aesthetic
22 reasons and because of wildlife reasons.

23 The question now becomes: How much do we
24 spread them around? What is the spacial pattern of
25 those actual harvests? Where should they be?

1 We can know with whatever certainty one
2 needs that the act of harvesting alters habitat, the
3 question is: How much does it alter habitat? How big
4 can one of those things be, and what are the adjacency
5 constraints, how close can they be together, in what
6 time period, in order not to have a negative impact on
7 the population level.

8 The issues that need, to me, to be
9 addressed really strongly in the next decade are those
10 kind of issues, and we will never approach them by
11 constraining; we have to be looking at what we are
12 doing in pattern out there in that forest and how the
13 populations that subsist on that pattern are, in fact,
14 reacting to it.

15 THE CHAIRMAN: Okay. And one last --

16 MR. MARTEL: You are testing then the
17 pattern that you are going to come to any type of
18 answer.

19 THE WITNESS: Yes. You sound like a
20 convert to adaptable management, sir. That it is
21 exactly what it would do, would be try to make measures
22 and, literally Hollling and Walters speak of, they
23 would take a step, a five-year operating plan and call
24 that an experiment and at the end you test your
25 hypothesis.

1 THE CHAIRMAN: So one last question on
2 this from myself; and, that is: As you are moving
3 towards your form of integrated management - and I say
4 your form because it seems to differ from what others
5 have called integrated management - can you foresee a
6 system that basically relies on constraints as it moves
7 towards your form of integrated management?

8 In other words, you are not advocating
9 scrapping the existing system and moving to something
10 tomorrow for which you have not got the database in
11 place, nor probably the sophistication of measuring it
12 in the first place?

13 THE WITNESS: Certainly not.

14 THE CHAIRMAN: So, it would be a gradual
15 thing and moving gradually away from constraint
16 management to integrated management incrementally
17 perhaps, as you have indicated, experiment with a
18 particular plan and experiment with one or two species
19 and build your knowledge of being able to apply
20 adaptive management in that fashion.

21 THE WITNESS: I agree with that. I think
22 the only thing we quibble about is what the word
23 'gradual' means. At the rate we are now altering the
24 pattern in the forest I think that in 10 years from now
25 we better have made the same kind of strides in terms

1 of habitat patterns as we have made in the last 10
2 years on wood supply patterns.

3 THE CHAIRMAN: So you would like to see
4 it complete in 10 years?

5 THE WITNESS: I think it is feasible,
6 yes. That isn't a technically impossible thing, it
7 would have been prior to the introduction of geographic
8 information systems; it isn't now.

9 THE CHAIRMAN: And we have not dealt
10 with - and I don't know, Mr. Turkstra, if you are going
11 to get into this in your direct at all - as to any
12 estimates of the cost of doing precisely that, but
13 obviously there is a cost involved?

14 THE WITNESS: Yes, sir.

15 THE CHAIRMAN: Which might be substantial
16 over what is being spent today?

17 THE WITNESS: Yes, it could be. I guess
18 I would -- I don't want to quibble, but I would argue
19 that there are also costs in not doing that and they
20 will be borne by the resources, they won't appear as
21 dollars and cents but they are going to be there if, in
22 fact, our constraints are inadequate.

23 THE CHAIRMAN: Okay. It's all yours, Mr.
24 Turkstra.

25 MR. TURKSTRA: Thank you.

1 Q. Dr. Baskerville, is the essence of
2 what you are talking about the difference between
3 forest management and timber management plans?

4 A. I suppose. I have trouble with the
5 terms because I guess I have always thought timber
6 meant timber, but if you were managing a forest you
7 manage the resource, all of the resources therein.

8 And I have trouble when I am speaking in
9 Ontario to keep distinguishing between timber and
10 forest. Most other places speak of the forest resource
11 and include the things that live in it, and are trying
12 to do the -- they place their constraints in that
13 context.

14 Q. I was trying to, as I was listening
15 to the answers that you gave to the Board Chairman, to
16 try to get a concrete example. And you mentioned
17 something about objectives being stated in general
18 terms in the plan even with the level of integration
19 now and there being nothing then to judge by whether or
20 not the objectives had been met.

21 Is it as simple as stating the objective
22 to be a certain number of, say, beaver dams in an area
23 versus a general statement that beaver population is to
24 be maintained?

25 What I am asking you to do: Is there a

1 way of having you turn that into a concrete example at
2 the unit forester level that would illustrate the
3 difference between the two types of -- the way in which
4 objectives are stated, as reviewed in your audit, and
5 the way you think they should be stated.

6 If you were the forester, how would it
7 end up being expressed differently in the plan; how's
8 that?

9 A. If we use the beaver one it might be
10 the, I think since you raised it, it wouldn't be
11 uncommon to say that the beaver population would be
12 maintained, but since we don't know what the current
13 beaver population is, how will we know whether or not
14 we have maintained it.

15 So someone will find a beaver dam that
16 isn't -- that was occupied five years ago that isn't
17 occupied now and say that they aren't maintained, but
18 those beavers may be some place else. I don't know
19 whether beaver are that mobile, but the population may,
20 in fact, be maintained but in a spacially different
21 pattern.

22 And the issue here is whether or not we
23 are focusing on the thing we are actually trying to
24 maintain which is a beaver population, rather than the
25 appearance thereof.

1 I think it's a big difference to say:
2 Will you maintain the beaver and will you keep the
3 beaver population at 500 per 10 square kilometres in
4 every part of the forest. So that if you weren't
5 allowed -- if you had to produce that many in each 10
6 kilometre square of the whole forest unit that would be
7 a very explicit and testable objective.

8 THE CHAIRMAN: What about objectives
9 being on a provincial basis as opposed to a wildlife
10 management unit basis or a different type of management
11 unit basis?

12 In other words, if you indicate that you
13 are going to maintain moose on a provincial basis at a
14 specific level and you find within a particular
15 wildlife unit that it's down supposedly, but in another
16 one it's up, and you are still maintaining it at
17 particular level for the province, do you have a
18 problem with the wider concept of managing on
19 provincial levels for some resources as opposed to
20 smaller units?

21 THE WITNESS: I would have difficulty
22 arguing against your point in that, I guess I said with
23 as much strength as I could yesterday, that you can
24 have everything we want from a forest, but not at the
25 same place year after year, as long as you are willing

1 to seek those same conditions as they move through the
2 forest with time.

3 So what you have done is expand that for
4 the whole province and if people agreed -- the users
5 agreed that they were willing to drive to a different
6 place to go hunting when they go for their moose each
7 fall, what you have described would be an acceptable
8 approach to managing that part of the population.

9 MR. MARTEL: But if they don't, and they
10 don't want to go - and there is some evidence of that
11 presented here from experience, that people don't want
12 to go from one unit, let's say near Sudbury, to a unit
13 near Thunder Bay to do their hunting - what option do
14 they have; they either go to Thunder Bay or they don't
15 hunt.

16 THE WITNESS: Or you manage the local
17 population.

18 MR. MARTEL: Or you manage the local
19 population.

20 THE WITNESS: That, you see, is choosing
21 an objective at the social level --

22 MR. MARTEL: Which is not a provincial
23 level any longer then, you are then starting to break
24 it down into management units and saying you have got
25 to have a certain population in this unit, and not the

1 provincial figure that we are looking at of so many
2 moose by the year 2000?

3 THE WITNESS: On the face of it I would
4 guess certainly for timber, if you averaged for timber
5 you don't have any problems, none. I can't imagine
6 what problems could exist if you were willing to
7 average a whole 48-million hectares and say they are
8 all equal, you treat them all equal and we have no
9 supply problems, but I don't think you will find very
10 many folks here that would really want to do that.

11 MR. MARTEL: They would want all of
12 that...

13 THE WITNESS: No, the level of
14 aggregation in the objective is crucial because society
15 is going to perceive it at a fairly aggregated level,
16 but our ability to deliver it in the forest is going to
17 be at a very disaggregated level, and there is a
18 real -- we have got to make a link there if we are
19 going to make those things happen.

20 THE CHAIRMAN: But going back to your
21 point I think that you made yesterday, you cannot
22 really manage effectively in an integrated fashion if
23 you are working off of different land bases?

24 THE WITNESS: I agree.

25 THE CHAIRMAN: So if you trying to manage

1 timber on a timber management unit basis and wildlife
2 on a wildlife management unit basis, the latter being
3 four times as large, you have got a problem--

4 THE WITNESS: Yes.

5 THE CHAIRMAN: --in terms of managing in
6 a specific area for which the timber activities are
7 going to impact?

8 THE WITNESS: If there were a fixed --
9 and if there were complete management units within,
10 timber management units within the wildlife management
11 unit, it's still in theory practicable.

12 THE CHAIRMAN: Well, you could add them
13 all up, that's right.

14 THE WITNESS: When lines cut them in
15 half, then it gets really awkward.

16 MR. TURKSTRA: Q. Dr. Baskerville, you
17 mentioned something yesterday about two timber
18 management units in Ontario that seemed to be starting
19 to make some progress, this was Timmins and one other.

20 A. I have graduate students who work in
21 various places so I hear things, but it's clear that in
22 the Timmins area there are people working on the
23 implementation of an analysis of the pattern of forest
24 as it relates to moose population, and similarly in the
25 northwestern part of the province as well.

1 Q. Is this called habitat supply
2 analysis?

3 A. That is the description that is used
4 in New Brunswick. Jack Ward Thomas, who started this,
5 used a slightly different phrase, but it was quite long
6 and I think the habitat supply analysis stuck because
7 it is similar and analogous to timber supply analysis.

8 Q. When the unit management plan sets
9 out a harvest schedule and a silviculture schedule, can
10 you tell whether or not that is, in effect, managing
11 the forest in the management unit?

12 A. I would say that in the context of
13 the structure and the process that is set up in the
14 manual of the plan it does a dynamite job. All of the
15 controls one could ask for in that kind of a structure
16 are built in.

17 And that to the extent that I could find,
18 when I asked to have the list of all of the stands in
19 the back of the operating plan, and I picked out a half
20 a dozen at random before I went to a place, when I
21 arrived at the place and said: I want to see the files
22 on number 7634, they were able to discover it and bring
23 it out. The process of designing and implementing area
24 regulation is absolutely first rate.

25 Q. Then at page 12, in terms of the

1 questions that have just been put to you by the Board,
2 is the concluding paragraph, just above the words "Area
3 Regulation", a summary of your current views on what
4 you see as the problem with regard to integration?

5 A. Yes.

6 Q. We covered a bit of the next area
7 yesterday. Can I ask you turn to page 28, and in terms
8 of the question that the Chairman put to you in terms
9 of available data and your reaction to that, does this
10 section on forecast cover that in perhaps a little more
11 detail than the answer that you gave?

12 A. Yes. The intent there was to
13 describe the kinds of things in word form that I went
14 through in diagrams yesterday. I like the little quote
15 at the start of that section that I found in one of the
16 Ministry documents:

17 "It has been said that the greatest
18 dilemma of mankind is that all knowledge
19 is about past events and all decisions
20 about the future. The object of this
21 planning, long-term and imperfect as it
22 may be, is to make reasonably sure that,
23 in the future, we may..." wind "...up
24 approximately right instead of exactly
25 wrong."

1 And that just absolutely nails I think
2 the way we should be approaching the future.

3 Q. And on page 30 you had some comment
4 about the capability of the Ministry, and the Chairman
5 asked you about the availability of data. There is a
6 paragraph at the top of that page -- actually the first
7 three paragraphs set out your views on that.

8 A. Yes. At the time I did the audit I
9 was comfortable that the talents existed in the
10 Ministry to do anything that I described yesterday,
11 certainly on the timber side. While I have not gone
12 back obviously and reviewed the situation in detail, it
13 is clear to me that that capability is probably at or
14 close to the state-of-art right now inside the
15 Ministry.

16 Q. And I understand you then examined a
17 number of the forecasting tools that the Ministry had:
18 The yield tables at page 30; the wood supply model at
19 page 33; the unit forecast at page 35; a forest
20 resource inventory at page 37, and you took us through
21 the tables on that the other day which continues over
22 to page 44.

23 You had a comment at page 44 in the
24 second full paragraph beginning with the words: "It's
25 worth repeating...", and there is a discussion of the

1 FRI tool at that page. Is that still your view?

2 A. I'm sorry, where are you?

3 Q. I'm at page 44, on the paragraph:

4 "It is worth repeating that FRI is
5 not an unreasonable base as used in
6 current forest management planning, but
7 it was not designed for stand-level
8 decision-making and is incorrectly
9 applied at this level."

10 Are you still satisfied with that
11 paragraph?

12 A. Yes. We are caught in forestry in
13 any place with this particular problem. FRI was
14 designed to answer a question: Initially how much wood
15 is there in a large area, not how much wood is there at
16 each place within that, but total.

17 And the sampling procedure was designed
18 to do that and it evolved over the 40 some years of its
19 history, and I think that it was either first or very
20 near the first, so it was one of the first of these
21 provincial inventories to be installed in the late 40s,
22 mid-40s.

23 The difficulty arises when the map
24 shows -- the maps generated by FRI show a little
25 polygon and attached to the polygon is a description,

1 and that description is such by the sampling procedure
2 that if you added them all up for an area of, say, a
3 half a million hectares, you would come to a reasonable
4 approximation of the total amount of spruce, the total
5 of jack pine and so on in that million hectares, but it
6 doesn't mean that on that piece of ground that if you
7 went and sampled it that you would get - and you would
8 be within say plus or minus 5 per cent, 10 per cent at
9 the large scale - that it doesn't suggest for a minute
10 that if you went to that location on the ground that
11 you would be plus or minus 5 per cent for that stand.
12 It was not designed to answer that level of question.

13 The way it is used in this particular --
14 in the area control, it isn't really crucial that it
15 reflect the actual volume; it is very crucial that it
16 reflect the right working group and the right position
17 of each stand on the yield curve for that working
18 group.

19 I say 'relative position' not the actual
20 volume. If it's in the right relative position, then
21 it is a matter that the averages will take things out;
22 but if you get it in the -- relative to the idea that a
23 stand breaks up, you want to make sure that a stand
24 that is about to break up is on a position in the yield
25 curve where it will in any forecast.

1 So that the way it is used in area
2 regulation is reasonable. The part that is
3 unreasonable, I believe, are outside of the Ministry
4 essentially and are unreasonable expectations of the
5 tool.

6 Q. Then you deal with silviculture and
7 product distribution and some other subjects. And can
8 I take you to page 49. Would it be correct to say that
9 at page 49, 50 and 51, you have summarized much of the
10 evidence that you have given before the Board on the
11 issue of adaptivity and management design?

12 A. Yes, sir.

13 Q. On page 50 there is a reference in
14 the third paragraph:

15 "Although the planning documents make
16 reference in one way or another to the
17 ideas of feedback control and adaptivity,
18 there is no evidence of use of these in
19 actual operation of the OMNR with respect
20 to managing renewable resources."

21 Can you expand on that a bit?

22 A. I mentioned yesterday that when I
23 showed the idea of a negative feedback loop that all of
24 us really believe that we operate that way, it becomes
25 a matter of degree and that is what this is about here.

1 The system suggests -- in fact, if you
2 read the manual it suggests not only do you fill in a
3 table but you provide a description of why the table is
4 filled in the way it is. And actually read the
5 description, the descriptive part, what it becomes is a
6 reference to the table rather than an analytical
7 statement that explains what the table means and how
8 these things are actually done.

9 So that when you look to see where there
10 has been a test done, a measure done, how did that get
11 used to influence actions back around. The only place
12 where you could detect that it had direct feedback was
13 in that entry into the MAD base where a hectare that is
14 harvested leaves the base for the area calculation and
15 does not re-enter until it has passed tests and those
16 tests are tracked; but for most other things it was
17 difficult or impossible to discover the loop where that
18 closed.

19 THE CHAIRMAN: Could that be rectified,
20 in your view, through a better description of how the
21 feedback is integrated into the whole management system
22 in the manual through a textural description?

23 THE WITNESS: Largely. If the manual was
24 used as its author suggested in the quote that I gave
25 here from him, I think it would have happened.

1 Certainly to the degree that you enhance
2 the accountability of the person who writes the plan,
3 it is in his best interest to very quickly - if he is
4 going to be held accountable - to make sure that those
5 are in to protect himself. It would be automatic, if
6 you held a person, the unit forester accountable for a
7 plan in the performance of a forest relative to that
8 plan, I think you would find those things emerge very
9 quickly.

10 MR. TURKSTRA: Q. In that connection,
11 Dr. Baskerville, on page 51 there is a paragraph about
12 feedback control.

13 "Much has been written about feedback
14 control in resource management, and
15 about the need for adaptive approaches to
16 resource management. This is not the
17 place for an essay on those topics, but
18 it is clear that OMNR could use a major
19 injection of the adaptive approach. A
20 major injection will be needed to
21 overcome the 'steady as she goes, do it
22 by the book' approach that has become
23 administratively entrenched."

24 Are you comfortable with that statement
25 today?

1 A. Well, it was my version of what
2 constituted the truth at the time. I can't say that I
3 would say the same thing if I went and reviewed now,
4 but it's a crucial issue, yes.

5 The distinction that I would like to make
6 here is that the difference between 'management' and
7 'adaptive management' the crucial difference, in my
8 opinion, is that in management you state what it is you
9 are trying to reach and then you concentrate on
10 validating; whereas the adaptive approach forces you to
11 get all your assumptions out and says: When you get to
12 the end of a five-year time step, attempt to invalidate
13 them, find out where you are wrong because you want to
14 be getting better as you go along. That is the
15 fundamental distinction.

16 THE CHAIRMAN: Is there at inconsistency
17 with what you are saying if you are advocating that the
18 person who is doing the managing on the ground, for
19 instance the field forester, for example, be held
20 accountable for the way in which his section of the
21 forest is managed; and, therefore, I would suggest
22 requires some flexibility in approach so that he can
23 adapt to the various situations as he finds them and
24 the need to document everything that is being done in
25 accordance with a plan of management that is set down

1 in some kind of manual.

2 In other words, on the one hand you want
3 to be able to prescribe how something should be done;
4 on the other hand, you want the person accountable, who
5 is actually doing it, and that may require some
6 flexibility which may not accord with the way the
7 manual said you should go about doing it.

8 How do you integrate those two problems?

9 THE WITNESS: I doubt if the authors of
10 that manual really believed that they were prescribing,
11 saying what the guy at the end should do, which was
12 inferred in the way you stated that.

13 I think that the intention was that:
14 Here are guidelines for reporting and guidelines for
15 ways to make decisions, and if you follow these ways to
16 make decisions you will come to the correct local
17 decision now report it in this format so that we can
18 have consistency backwards.

19 I think that any system that imagines
20 that we can at any level, remote from the natural
21 system itself, sit back and pull strings and make
22 choices isn't a very safe one to work with. The level
23 of understanding of the system itself is going be
24 highest in people who are actually working with it.

25 THE CHAIRMAN: So you are still placing a

1 great deal of reliability or confidence in the ability
2 of the trained person on the ground, the unit forester,
3 if that is the case with regard to a timber management
4 plan, on his or her ability to practise their craft
5 without having prescriptions tying their hands, so to
6 speak?

7 THE WITNESS: Yes. A prescribed approach
8 for making a decision, but not a prescribed decision.

9 THE CHAIRMAN: Right.

10 THE WITNESS: Is what I would go for.
11 And the unit forester isn't naked, he sits in a
12 district office and has some substantial backup.

13 Another thing that is important in this
14 is that information handling has changed dramatically.
15 In the first attempt to demonstrate timber supply
16 models we had to convince the Deputy Minister to take
17 an evening and come where we could sit him at the
18 console of a big computer and run it, and a woodlands
19 manager to come in, because the only way you could run
20 it was on the biggest one that we had in the
21 university.

22 The computer I have on my desk in my
23 study at home now has more capacity than that machine
24 had 10 years ago, and it was the biggest one in the
25 university, that I carried around with me. There is

1 the capability, the technical capability to do things
2 and have the information control to be distributed
3 right down to the Wawas of the world without any
4 trouble at all.

5 MR. TURKSTRA: Q. I think we covered in
6 substance yesterday, Dr. Baskerville, the timber
7 management implementation and the concerns that you had
8 which would take us over to page 61. And at 61 and
9 following you dealt with broad planning issues.

10 MR. TURKSTRA: Mr. Chairman, I don't
11 propose to take Dr. Baskerville through it because I
12 don't think there is anything to add.

13 Q. There is one word at page 69 that Dr.
14 Baskerville used yesterday, and it might have been
15 taken as a typing error in the second paragraph:

16 "While it is clear that a public
17 resource should be managed for the public
18 good and that this will require public
19 consultation to discover how the public
20 values various benefits from the
21 resource, this top down only approach
22 by the OMNR encourages
23 satisficing."

24 That is not a word that I am familiar
25 with and I wondered -- you used it yesterday. Can you

1 tell the Board what you meant by it?

2 A. A conventional description of the way
3 society makes decisions is that we are rational and
4 that we compare benefits and costs and that we come to
5 some conclusion and we choose on a thoroughly rational
6 basis.

7 In the early 60s a man named Herbert
8 Simon began to write on the theory of what he called
9 satisficing, in fact, he got the Nobel prize in the
10 late 60s for his work in this area.

11 Basically what he did was analyse
12 decisions that had been made and demonstrated that they
13 were not always rational, that there was an element of:
14 If that's what they want, let's give it to them. We
15 know it's not technically correct, it's not the most
16 cost effective, it's not going to achieve the control
17 we want, but we are going to trade-off technical
18 effectiveness in this decision, rational effectiveness
19 in this decision with the opportunity to gain public
20 support for the decision, simply stated.

21 The literature in management and decision
22 has followed that and there has been a lot written
23 about satisficing in the way we make decisions.

24 In this sort of context I suppose the
25 place where that is most likely to occur, and if you

1 were confronted with making the management plan for one
2 management unit and going through the public process,
3 you would build a plan that is technically as correct
4 as you can build it to deliver the proper amount of
5 wood and the proper quality at a reasonable cost to
6 contain all of the constraints for moose, deer, fish
7 and all the other things, and you present that, there
8 is a high probability that in a public forum when
9 someone says: Well, we would really like something
10 different here, we would like wider boundaries or
11 whatever without having any rational reason,
12 cause/effect reason for them, the tendency for the
13 human mind is to say: In order to get this plan
14 through, what I am going to do is make them wider.

15 Now, in that particular case that is
16 maybe good or bad or indifferent. The difficulty comes
17 when you actually choose actions based not on what is
18 the cause/effect underlying mechanism of the way the
19 world runs, but on what the public perceived from
20 watching television would be a good thing to do.

21 So that, to use an example, this whole
22 country engaged in a binge on planting beginning in the
23 early 80s -- late 70s, early 80s and it was clearly
24 good to plant, and if you weren't planting more than
25 the other province you weren't as good as the other

1 province. Nobody asked: What's the problem and does
2 planting solve it; the public wanted planting, so we
3 satisficed, as a forestry community, as a whole
4 satisficed. That is what they wanted, they want
5 planted trees, we will give them planted trees.

6 In a whole bunch of cases we have
7 discovered by forest dynamics analysis that planting
8 wasn't the answer, and now there is some backing and
9 filling going on to try and say: Gee, we still need
10 the money but it's not for planting trees.

11 It's something that finds its way into
12 our decision-making wherever, and predominantly in
13 public resource decisions, decisions that affect
14 society at large rather than rarely a problem when
15 somebody is making an investment decision for himself,
16 it becomes a much larger problem as you try to reflect
17 a group.

18 Q. While we are on terms, at the bottom
19 of page 72 you deal with the terms optimum and
20 optimization, I'm just reading what you say:

21 "...are at best jargon, and bear no
22 relationship to the substantial technical
23 subject of optimization. In the OMNR
24 sense, optimum means "feels pretty good
25 for now, based on the judgment of the

1 people now present".

2 And going on:

3 "It is important to understand that the
4 approach used in the OMNR planning is not
5 not achieving an optimum with respect to
6 all values obtained from the forest. In
7 fact, no real optimization process is
8 used to determine the unique set of
9 management actions required to achieve a
10 defined "best mix" from the forest."

11 Does that relate to what you were just
12 saying to the Board?

13 A. Mm-hmm. And it just occurred to me,
14 one of the most common phrases that we get -- that gets
15 us in trouble is the phrase that "...nature to be
16 commended must be obeyed...". Everyone has heard that
17 one.

18 It's an interesting thing, it was
19 actually written in the year 1612 and in its full
20 context it says something quite different, it says:

21 Human knowledge and human power meet in
22 one but where the cause is not known, the
23 effect cannot be produced. Nature to be
24 commended must be obeyed and that, which
25 in contemplation is the cause, is in

1 operation the rule."

2 And what we have tended to do when we get
3 into satisficing is to use only the part of that that
4 says: Nature to be commended must be obeyed, let's do
5 something nice, and forget the part that says its
6 cause/effect connection that is going to allow us to
7 control.

8 The same thing is true when it comes --
9 which was the section in optimization you were
10 referring to?

11 Q. Bottom of page 72.

12 A. The issue there is whether or not you
13 have obtained systematically the best trade-off of five
14 different value sets in a repeatable manner, so that if
15 you do it or I do it we will get the same answer; that
16 is the optimum, which is what mathematical optimization
17 would do.

18 We would agree collectively on
19 trade-offs -- you don't have to put it all in dollar
20 values, but it would be necessary to arrive at a rule
21 that says -- I was once asked by someone doing this:
22 How much would I give up in success in my salmon
23 fishing on the way to work in the morning in order to
24 have a hundred more jobs in the local community. And
25 the idea was my success rate in salmon isn't great, but

1 I didn't want to give up very much.

2 There has to be a level in all of these
3 things. If I'm confronted with a choice between a
4 hundred jobs or an extra two salmon in the season, each
5 of us will make a trade-off. It doesn't have to be
6 dollars and cents, but once we have stated that,
7 someone can then duplicate my trade-offs and say:
8 Here's an optimal solution for you.

9 THE CHAIRMAN: But can it not differ
10 between people as to what the optimum is?

11 THE WITNESS: It sure will. In fact the
12 first time this was actually done for me the person
13 took about three days of fairly intensive analysis. It
14 was a person from Harvard University School of
15 Administration, three days of analysing me and getting
16 me to make little trade-offs and then he wrote an
17 algorithm that said: Here's how you actually make
18 choices, and it was not what I thought I had written
19 down at the start what I thought I did, but the way I
20 actually made the choice turned out I actually favored
21 jobs far more than I thought I had.

22 The key here is whether or not this is
23 done in a way that is open and accessible for somebody
24 to look at and say: Yes, we have seen how we have made
25 the trade-offs, or whether it's done by saying: We've

1 had a discussion and it feels good. We don't know
2 exactly what the trade-offs were, but we think this
3 will do it.

4 Q. Dr. Baskerville, sorry.

5 A. Yes.

6 Q. Is that found at page 73, the
7 paragraph:

8 "There is no reason to expect that
9 optimum value is being achieved from
10 Crown forests despite the frequent use of
11 the word in planning documents. It would
12 be possible to use an optimization
13 approach, but it would be a drastic
14 departure from the current scheme of informal
15 qualitative judgments. It would not be necessary to
16 convert everything, or anything, to dollar values to do
17 the job, but it would require an explicitly
18 quantitative statement of all of the connections
19 between the various benefit flows. In other words, it
20 would require explicit statement of such things as how
21 a particular measure of harvesting affects a particular
22 measure of wildlife habitat, as opposed to the broad
23 trivial statement that there is an influence."

24 A. Mm-hmm.

25 Q. Is that essentially the summary of

1 what you have just been saying to the Board??

2 A. An optimization calculation always
3 has the same form, it says: Maximize, and then it
4 states something that is to be maximized or minimized,
5 and then it says: Subject to, and it will -- not
6 spending more than this amount of money, there will be
7 a series of constraints.

8 And the issue here is whether you say:
9 We are going to maximize timber production subject to
10 not violating the area of concern constraints, not
11 violating this, not violating that and so on, but
12 whether you are saying maximize timber, deer, moose,
13 warblers and then the next step provides a relationship
14 of the trade-offs amongst those.

15 There is a huge difference between those
16 two in what the outcome is and in terms of whether or
17 not you can make it happen in the woods, whether or not
18 you have got the tools, the people -- I'm not an
19 optimization type person. I spend most of my time
20 arguing against its formal application in forestry
21 until we have got a good analytical base for forest
22 dynamics, but the advantage of it is, that if you get
23 an optimal solution, with it comes all of the things
24 that you need to do, all of the schedules are specified
25 - from that on what you would need to do.

1 My understanding is that the word optimum
2 here is used in a looser, not meant to be in that
3 context of a rigorous technical sense, but even in a
4 dictionary sense optimum means some balance of best,
5 some trading off, that optimum means not maximum but:
6 I have got two things, and there is an optimum now
7 between them. I can't have the maximum of two because
8 they are mutually exclusive, I then choose optimum but
9 there is some balance between.

10 What is missing in the approach here in a
11 soft optimum is any statement of what those two levels
12 are that have been traded. It had to happen in order
13 to arrive at the optimum, but you can't tell what it
14 was.

15 Q. Now, I'm going to skip along then to
16 the summary and I think we are ready for slide 75; is
17 it, Dr. Baskerville?

18 THE CHAIRMAN: Well, Mr. Turkstra, I
19 think before we start in the summary, we will take a
20 break at this time. 20 minutes.

21 Thank you.

22 ---Recess taken at 10:20 a.m.

23 ---On resuming at 10:50 p.m.

24 THE CHAIRMAN: Thank you. Be seated,
25 please.

1 MR. TURKSTRA: Mr. Chairman, Members of
2 the Board, there is a summary of course in the audit,
3 but what I have asked Dr. Baskerville to do is to
4 prepare a summary of it in his words today, and you
5 will find that starting at page 75 of Exhibit 970.

6 Q. And with that introduction, Dr.
7 Baskerville, can you tell the Board in the context of
8 this hearing what, in your opinion, are the important
9 conclusions you reached in the audit?

10 A. Certainly the most striking --

11 Q. Can I stop you for one second.

12 A. Oh, I forgot my power, yeah.

13 Q. You sounded very different.

14 A. The most striking feature when you
15 travel and examine forests in a province as large as
16 Ontario is the diversity, the difference amongst the
17 117 units, either that they aren't all the same, that
18 doesn't mean that one cannot approach each one using a
19 similar process to arrive at a decision, but it almost
20 certainly means that the decision one would come to
21 would not necessarily be the same in each of the 117.
22 I tried to make that point in summary.

23 The second point was that it appeared to
24 me that the approach to management design, the
25 calculation and implementation of area regulation was

1 thorough; the problems that I found with process tended
2 to be more in the attitude of the individual players
3 than in the process itself. So that there was, as I
4 said here, a tendency to apply it by rote rather than
5 by intellect.

6 I keep coming back to that phrase in the
7 front of the manual, that it was offered as a way to
8 systematically report on how decisions have been
9 reached rather than to say what the decisions would be.
10 And that kind of problem is -- I guess that's one that
11 human systems have, we each of us want to know how we
12 will be judged and performing to that level, so that
13 leads to application by rote rather than by intellect.

14 But the approach to management design as
15 it's laid out in the manual is entirely consistent with
16 forest management principles as they are accepted
17 today, it is area regulation rather than volume
18 regulation, but there are ways to bridge.

19 The third point in the summary was that
20 the objectives struck me as reasonable. When I read
21 them they were the kinds of things that one would say:
22 Yes, that would be a good thing to achieve. At the
23 same time there was an inadequate linkage between that
24 good thing which it would be nice to achieve and the
25 biological dynamics in the system. So that I looked --

1 when I said: Yes, that would be a good thing to
2 achieve, now where is the linkage that would show that
3 if I control -- take these sets of actions over time
4 and over space in that forest I would in fact get these
5 good things.

6 The two features that struck me as most
7 damning in that particular area were the production
8 targets when they were set outside the context of a
9 management unit. The production possibilities, is the
10 phrase that's commonly used today, are usually
11 calculated on a fixed land base, you take a land base
12 and the first thing you do in an analysis, as I
13 suggested yesterday, the first step is an analysis of
14 the production possibilities. In 1986, what actually
15 happened was that targets were set out of the context
16 of the management units themselves; that's timber
17 production targets.

18 The second problem that I had in terms of
19 how reasonable objectives were being approached was the
20 measures tended to be in terms of tasks carried out
21 rather than in system control accomplished. And if I
22 asked, for instance, at any level you could find out
23 exactly how many seedlings are planted and how much it
24 cost to do it, but if I asked, even at a management
25 unit level: What proportion of those plantations have

1 passed free to grow, then it immediately became very
2 cumbersome, possible to get, possible to get the
3 numbers, but we literally were looking at post-binder
4 ledgers five or six this thick and leafing through to
5 find the actual records.

6 So that the system had gravitated in a
7 way that it was reporting the things that satisficed or
8 satisfied, whichever you like, the people further up
9 the line rather than the things that reported control
10 of the system itself.

11 The fourth point that appears in the
12 summary is the statement that the technical issues that
13 were raised in the audit are all capable of being
14 handled by staff inside the Ministry, that their exists
15 the intellect, the training, the skills to deal with
16 the problems that I discovered whether they were -- had
17 to do with modelling or whatever, design or information
18 systems, that that kind of skill was there, it seemed
19 to be to me a matter largely of focusing it, getting
20 it -- having it address the particular problems, real
21 problems rather than work at a general level.

22 I suppose it happens in any organization,
23 but when I asked: How would I use the model OWOSFOP so
24 that I could get species volumes instead of working
25 group volumes, somebody said -- gave me a name and

1 said: Go get that gentleman and he will fix it for
2 you. And I encountered a young man who I would let
3 build models for me any time, he really had it
4 together. He was squirreled away in a very back office
5 but he very quickly understood what I wanted and inside
6 a week had, to my satisfaction, demonstrated to me that
7 his programming had done what I asked for and delivered
8 the thing. So the skills are there.

9 The notion -- the phrase I used of
10 administrative mind set, a feature of all large
11 organizations perhaps that we become concerned with
12 administering the things we are doing, our daily tasks
13 as opposed to evaluating the tasks in terms of what
14 they accomplish towards making a difference: How many
15 lectures did you deliver today rather than how much
16 learning occurred, for instance.

17 The tendency in the structure for
18 performance again to be evaluated in terms of number of
19 trees planted rather than the control of the system
20 that was accomplished I think reflect that. That's a
21 pretty individual thing, the idea of an administrative
22 mind set; but the prevalence, the frequency with which
23 you encountered it, particularly when you read -- I
24 took the letter file from each district office and each
25 regional office that was associated with the management

1 unit that I reviewed and when you read through that
2 letter file - in some cases they were slim, in other
3 cases they were several folders, two or three inches
4 thick - when you read through those you frequently find
5 yourself reading an exchange of letters that had to do
6 with whether or not Table 4 had been filled out
7 properly or the right number of decimal places in it, I
8 guess would be a better thing, that it had decimal
9 places that it wasn't supposed to have, as opposed to
10 saying: What do the numbers in Table 4 mean, and we
11 want to debate whether or not you in fact reported on
12 the right part of the system, the right system state
13 rather than on something that you have done today.

14 The sixth point that comes up in that
15 summary is the issue of the unit forester. I suppose
16 since we are all creatures of our background that my
17 background would predispose me to think that the person
18 who was close to the forest would be the most important
19 place, but I believe there is a logic for it, that
20 close to the forest in this case means close to
21 something that's the size of 100- to 200,000 hectares.
22 I don't imagine very many unit foresters have actually
23 seen, even from a low-flying helicopter, every stand in
24 the forest that they are responsible for. It would be
25 a monumental task just to do that, but the only hope to

1 get a feel for forest dynamics into the system that is
2 related to reality is going to be at that level.

3 I do believe that quality control and
4 forest management, no matter where it is done, will
5 hinge largely at the level of what's called the unit
6 forester here. That person, the person in that
7 position needs to be a true manager, he has got to be a
8 person who is thinking in terms of controlling that
9 whole system, the forest system, not in terms of
10 responding to a bureaucratic system above him.

11 It is the place in the whole structure
12 where whatever else is done in terms of policy or
13 anything else is going to get converted to action in
14 the woods, and I feel strongly that that particular
15 position needed to be elevated to the point where if
16 you got to be really good in the system then you got to
17 be a unit forester; whereas the way it works now, you
18 start as a unit forester and if you want to -- or at
19 1986, what happened then was that you started as a unit
20 forester and if you were pretty good at whatever it was
21 that was expected of you, you could move up in the
22 structure.

23 I forget the actual numbers, they are in
24 here, but I think the average life of a unit forester
25 on the unit was actually less than one five-year time

1 review which meant that the person that put a plan in
2 place on average and the person who assessed it, made
3 the evaluation at the end, was not the same person. In
4 deference, there were two other cases that I happened
5 to interview where the same person had been there
6 for -- one case 15 years, in the other case 22, and you
7 could really see the difference in those.

8 THE CHAIRMAN: Dean Baskerville, is there
9 any administrative structure that you are familiar with
10 either in Canada or abroad where the unit forester is
11 at the top of the totem pole as opposed to, not the
12 bottom, but certainly middle management as opposed to
13 higher level management?

14 THE WITNESS: I don't think I could give
15 you an instance in Canada that I am aware of. I can
16 tell you in at least one company that I have worked
17 with where the person who runs one of the -- the
18 equivalent of an FMA is certainly within the company
19 held in the esteem and his judgment valued closer to
20 the top than, say, the chief forester because he is the
21 guy that's right out there. And I found that the
22 company president frequently will bypass the senior
23 bureaucrat, as it were, to go direct to them. So I
24 think that that can be recognized.

25 If you travel at all in Europe, you find

1 clearly the person with the power and who is seen to be
2 the real man in the community is the equivalent of the
3 unit forester, although he would have a much smaller
4 area of forest to handle than this.

5 MR. MARTEL: His salary could be
6 commensurate with the job or the elevation, or is he
7 just sitting there with all this esteem but still
8 getting paid as a unit forester, the lowest on the
9 bottom of the totem pole?

10 THE WITNESS: I really can't answer that.
11 I got the impression that they were -- the ones I
12 talked to were reasonably well paid. Certainly very
13 few of the ones that I talked to were in a sweat to
14 find their way up the ladder so that they could make
15 more money; whereas in our structures in North America,
16 if you talk to somebody down there, the likelihood is
17 that rather than hear him talk about how he wants to
18 stay for 25 years and manage this forest, he is going
19 to want to get to the district where he can have some
20 influence into the region and so on.

21 THE CHAIRMAN: Well, what do you do with
22 the structure which says that the responsibility for
23 the plan in terms of decision-making rests with the
24 regional director and on up the ladder, when in fact it
25 is written by the unit forester?

1 In other words, the unit forester
2 prepares the plan but then it goes through its approval
3 procedures and is ultimately approved by the district,
4 the region and supposedly main office, I am talking
5 about MNR's present management structure.

6 And what you are suggesting is, is that
7 the person in the field should have the ultimate
8 accountability and responsibility, but that is not the
9 person that approves the plan, and is there a problem
10 with the way it is presently structured in your view?

11 THE WITNESS: The first several pages of
12 the plan, if you've opened one, will be several pages
13 of signatures. The first page will be the signatures
14 of the people, their unit forester, the wildlife
15 manager, the fisheries, their recreation person and the
16 land manager.

17 The second page will be a set of
18 signatures for the district people who are the
19 analogues of that and the third page is the sort of
20 signatures for the regional people, and the sentence
21 above each of those signatures in effect says that they
22 approve the plan. And I guess if you follow that it
23 eventually finds its way -- used to find its way to
24 Queen's Park, now it is Sault Ste. Marie I imagine. In
25 effect, what it has done is distributed the

1 responsibility for the plan and for its implementation.

2 I think it was Peter Grecher that wrote:
3 When everybody is responsible nobody is responsible,
4 and that kind of problem occurs here in that -- I find
5 it with students, if they know they are going to be
6 corrected, they let mistakes slip by, but if you tell
7 them: I am going to let mistakes slip by and in the
8 end we are going to have an accounting -- at the end of
9 this laboratory period we will have an accounting, boy,
10 all of a sudden you only have to do it once at the end
11 of the lab and they start searching during the process
12 to eliminate the kinds of things that they don't want
13 to get caught.

14 But the feedback has to be clear, it has
15 to be fast and it has to -- say, it has to have a
16 penalty, it has to have a reward with it, the reward
17 being some measure of success.

18 THE CHAIRMAN: But how do you integrate
19 public reaction to a draft plan where the public has
20 the opportunity to raise concerns on something that's
21 presented to them; i.e., the draft plan, and there is
22 appeal mechanisms for elements of the plan that they
23 don't like and those appeal mechanisms are often
24 directed at the higher levels--

25 THE WITNESS: Yes.

1 THE CHAIRMAN: --at the district, region,
2 and if they are not satisfied as a member of the public
3 presumably you can go up as high as the Minister to try
4 and get something changed. I mean, how is that
5 affected by having the responsibility and
6 accountability at the unit forester level?

7 THE WITNESS: It should -- at least in
8 principle, it should be possible to do that and still
9 have the final plan at the final -- go back to the unit
10 forester and say now it has been amended, will you
11 still sign it. Because if it gets amended subsequently
12 it may be amended to the point where he no longer
13 professionally believes that it is a consistent plan.

14 But if he is willing to sign it at the
15 end and say: Now I accept full accountability, I will
16 implement that, in principle at least it should be
17 possible to hold him accountable for the implementation
18 of it and without having relieved him of any
19 responsibility by going through the process of public
20 exposure up through the different levels.

21 What was happening in '86 was that those
22 sequential steps actually relieved each lower level of
23 some accountability, or whether it did or not they
24 certainly perceived it to have relieved them of some
25 accountability as it went upward, so that the fellow at

1 the bottom didn't really feel very accountable, felt
2 very dedicated in most cases to the forest but not very
3 accountable, nor did he have the tools that he really
4 needed; how he's to control.

5 THE CHAIRMAN: Isn't that contrary though
6 to the average concept in the mind of the public that
7 if you are going to get addressed you speak to the top
8 person; in other words, if you perceive a problem,
9 there is no sense talking to the salesperson at a sales
10 desk if you think you can get appropriate address from
11 the manager or the president of the company, and you
12 tend to go to where you think the power lies that would
13 compel the persons at the lower levels to comply.

14 And would you perceive that the public
15 would not necessarily be satisfied with addressing all
16 of their concerns to the unit forester if they perceive
17 that person to be not at the top level of the
18 decision-making structure?

19 THE WITNESS: Well, to the extent that
20 the public reacts that way and believes that way, that
21 the power isn't down there, that it is somewhere up
22 above, then in fact what you have is a bureaucratic
23 system that's trying to implement something by rote.

24 The guy at the bottom is a receiver of
25 instructions which he will carry out in the woods as

1 sent to him from above and it gets reinforced; when in
2 fact if you bypass him and go further up, you can get a
3 message sent down to him.

4 THE CHAIRMAN: See, the problem arises
5 when you take an issue like the use of - which we have
6 heard of in this hearing - the use of insecticides,
7 with the decision for that being made at the top level
8 which is the Cabinet level or the ministerial level,
9 regardless of what some of the technicians or the
10 technical people at the lower levels would like to do
11 with that particular issue.

12 THE WITNESS: Mm-hmm.

13 THE CHAIRMAN: And the Minister, I would
14 suggest, or the members of Cabinet feel that they are
15 accountable ultimately to the people and, therefore,
16 that kind of policy decision should rest at that level.
17 They would be, I would suggest, reluctant to give up
18 that kind of decision-making authority to somebody at a
19 lower level who may come to a different conclusion
20 based on technical considerations.

21 THE WITNESS: And perhaps that's a real
22 good thing to have in our system.

23 MR. MARTEL: But it's not really -- it's
24 more that people don't trust the decision that was made
25 at any level. For example, if you are dealing with

1 insecticides or pesticides, it's because there is a
2 cynicism out there that I think prevailed for years
3 that people were only getting half the answers in the
4 whole fight in pollution and the whole feeling advanced
5 that people didn't believe what they were being told,
6 and ultimately, as you get more advanced, you find out
7 that frequently the public was right, quite frequently.

8 And so there is that cynicism that's
9 always left there when you come -- there just isn't an
10 open enough process surrounding things like that to
11 give the people a sense of confidence that what's being
12 achieved, what's being stated is in fact reality.

13 THE WITNESS: Without in any way meaning
14 to be defensive of the profession, I would suggest that
15 the public in fact is right, but they have only been
16 half right and that half part is crucial.

17 I think I can illustrate it to you why
18 the unit forester and the Minister have this problem.
19 The unit forester has a plan out there and if this is
20 volume per hectare and age, in his plan he shows that a
21 plantation will produce that much volume over time and
22 he has built a set of expectations on that,
23 particularly in the hands of industry there will
24 actually be a harvest schedule that shows when a stand
25 will come on and when it happens to be scheduled for

1 harvest at that age, the expectation is it will come
2 with that volume.

3 So he has written a plan that says: Yes,
4 I can meet the target volumes on the presumption that
5 the plantation grows that way. Then along comes
6 somebody who says: But you can't use a technique to
7 remove weeds from the plantation. Now the plantation
8 volume curve looks like that, maybe we will even let it
9 get up as high but out further. (indicating)

10 So now somebody up above has said: Your
11 plan is okay, you can do everything but you can't use
12 the weed control, but other than that it is okay.
13 Well, the guy that's sitting at the bottom says: Other
14 than that I now no longer can meet the one measurable
15 objective that we had which was to sustain a particular
16 volume.

17 So for him it's as traumatic an
18 experience for one individual at the bottom as it is a
19 traumatic public experience at the top, and it is the
20 total lack of linkage between those two that is getting
21 us in huge trouble.

22 THE CHAIRMAN: But who should make that
23 ultimate decision on whether or not you can use
24 herbicides?

25 THE WITNESS: Obviously society, but

1 society has to simultaneously recognize - and this is
2 why they are only half right, sir, in my view - they
3 have to recognize that what they have done by making
4 that choice is accept that yield curve and the outcome
5 of it in the forest.

6 MR. MARTEL: But I think you would have
7 to agree though that the public has to have the
8 confidence what when they are told something that in
9 fact it is reality, and that not two years later you
10 learn that it's not reality, ultimately you then become
11 very suspicious on whatever happens in future.

12 That's where the credibility gap becomes
13 a problem. I don't know if you agree with that, but...

14 THE WITNESS: No, no, I have to agree
15 with that, I think it is, but I also think it's -- I
16 hate to keep harping on being quantitative but if we
17 set things quantitatively that would happen a lot less
18 frequently.

19 We will make the soft solution,
20 comfortable satisficing solution that, you know, we
21 will find a way to do it and we won't worry about this,
22 so we will just hide that up, that doesn't exist, we
23 will find a good way to do it; then five years later
24 somebody says: Ah, but your plantations aren't doing
25 as well as you said they were, they are way down here,

1 how come, and they found that a plantation that isn't
2 growing.

3 And then we get anecdotal, and as soon as
4 you get anecdotal; yes, I guarantee it, there is a
5 stand that's perfectly managed in this province and
6 there has to be one that's absolutely the pits and
7 neither of those is of much interest to me, what's of
8 interest is the distribution of all of the stands in
9 the province.

10 You have never seen on television
11 anything that's been above the bottom 10 per cent of
12 that scale I guess, they just don't -- I don't mean to
13 say that humourously, it troubles me greatly that we do
14 not in our society make a point of showing the things
15 that are successful attempts to intervene and manage a
16 system, we show failures, and we have got a society
17 that has a great fear of failure.

18 I didn't bring it, the book by Don
19 Michael, Learning to Plan and Planning to Learn, has
20 several chapters in it called embracing error and
21 relating to embracing error and the essence being that
22 until we are willing to go and hunt error and put our
23 arms around it and love it when we see it, we are not
24 going to learn. And as long as we have this
25 predominance of beating on people and showing what nits

1 they are because they bombed in some case, who is going
2 to go out and look for error and try to learn from it.

3 The issue here to me, no matter that
4 little bit aside, is that in the case you described, if
5 in fact at the policy level the Minister says the tool
6 that would maintain that yield curve is no longer
7 available, then the system must have within it the
8 capability to go right back to the bottom and say:
9 Okay, we have now readjusted the local objectives to
10 whatever is available given that yield curve.

11 And if that exists, I don't see any
12 problem with that, but what is a real problem is to
13 submit the original plan on that yield curve, go to the
14 top and make a choice that means this one is going to
15 happen and leave in the community the expectation that
16 they are going to get that, because they aren't.

17 THE CHAIRMAN: So you have to redefine
18 the objective in accordance with what you are allowed
19 to do?

20 THE WITNESS: Yes. And I cannot see how
21 that can be anything other than an iterative process.
22 It's hard to comprehend, somebody says they are going
23 to build a new nuclear plant, and I think: Golly, I am
24 not sure I like that. And somebody says it is bad,
25 somebody else says it is good, and the first level that

1 you enter a discussion on, I can't follow.

2 Then as I begin to talk to people I find
3 how they are going to do it and some of the things that
4 are involved, and only then do I begin to form an
5 opinion that -- well, beginning just, to decide how I
6 would trade those off. This is an issue that we face
7 in New Brunswick.

8 It is not going to be simple for the
9 public to grasp whether or not the Bright Sands
10 Management Unit is going to deliver the amount of wood
11 that it should as a result of that and what difference
12 it makes. And most of all, the problems created by
13 that are all remote from the people who make the choice
14 in what he have just described. If that changes from
15 that level to this level (indicating), the guy who
16 experiences it and the wood cutters who cut the wood
17 all live up near Espanola someplace, they don't live in
18 Toronto.

19 THE CHAIRMAN: But supposedly the theory,
20 whether or not you like it or not - I don't mean you
21 personally - whether one likes it or not, is government
22 accountability and responsibility in the sense that
23 somebody ultimately who is elected is going to pay the
24 price at the polls if the individuals who are impacted,
25 and there is enough of them, band together to hold them

1 accountable for a bad decision?

2 THE WITNESS: Yes.

3 THE CHAIRMAN: I mean, unfortunately --

4 THE WITNESS: I wouldn't want it any
5 other way, sir.

6 THE CHAIRMAN: Yes. And that's the way
7 it is and you can't hold the unit forester accountable
8 in the same way.

9 THE WITNESS: No, and I am not suggesting
10 for a minute that you should, but I will argue as
11 strenuously as I can that if society makes the choice
12 to have that yield curve rather than that one
13 (indicating), then they should relieve the unit forest
14 of the accountability to deliver that one (indicating)
15 and that isn't happening.

16 The public is left with the expectation
17 that they can change broad policy issues of tools
18 available without reflecting back on how that impacts
19 what you can actually deliver in the forest. It's a
20 dangerous situation, it will be increasingly dangerous
21 in the issue of things like wildlife habitat, I
22 believe. That's why I am personally concerned about it
23 right now.

24 THE CHAIRMAN: Just to finish one last
25 question. How would you go about rectifying that? How

1 would you go about rectifying and say to the ultimate
2 decision-makers that if you change the objectives
3 because of the methods which you are going to authorize
4 something could be carried out, you make sure that the
5 public understands that?

6 THE WITNESS: It should be a relatively
7 simple procedure. All the data that one would need,
8 and in this case it is data, I think exists right now,
9 that there is in each management unit a production
10 forecast that can be achieved with certain tools.

11 As you aggregate those up and get down to
12 Queen's Park and Queen's Park decides: No, there is a
13 tool in there we are not going to use, and it's simply
14 a matter of going back to the bottom and saying: Take
15 that tool out, now aggregate upwards and tell us what
16 our production is total, and it won't be the same as
17 the other ones or the cost won't be the same, one of
18 the two will have changed. Usually you can deliver the
19 same thing but at a different cost using different
20 tools.

21 The problem is that we leave the original
22 objective up there but take one of the tools out and
23 then the public are reasonably - because no one has
24 told them otherwise - believing they will get the first
25 objective when it is no longer attainable.

1 THE CHAIRMAN: Yes, but that's dealing
2 with it on a very analytical basis. Isn't in fact what
3 often happens that the tool is removed and whoever
4 ordered the tool to be removed says we can nevertheless
5 still meet that production target through other means?

6 THE WITNESS: Yes, frequently at extra
7 cost, but not by delivering that particular --
8 someplace down there there is a cause/effect structure
9 that is no longer the same when you take the tool out.
10 And if you can deliver it, say in the case of weeding
11 by hand weeding, there should be some recognition that
12 either not all plantations that need it will -- as many
13 will be weeded before if you leave the budget the same
14 or the budget will be increased appropriately to cover
15 it.

16 It is the absence of providing the public
17 with the whole picture. That's why they find half
18 truth; they only saw half of it in the first place,
19 they were told the objective stays the same but we will
20 stop doing this. There has to be a way to present the
21 full picture.

22 THE CHAIRMAN: But I would suggest that
23 you are still going to encounter problems when in
24 presenting the full picture the decision-maker is
25 reacting to what they believe to be in the public

1 interest on the one hand by removing a particular tool
2 but would not be in the political interest of the
3 decision-makers to say: But to maintain the same
4 objectives it is going to cost a lot more and that's
5 going to be, for instance, an increase in taxes.

6 I mean, you won't get the two likely put
7 forward at least at the same time.

8 THE WITNESS: I think that's a fair
9 statement.

10 THE CHAIRMAN: Because you negate the
11 advantage to the decision-maker in reacting to public
12 opinion in that fashion by also saying to the same
13 public: And here is what it is going to cost you,
14 which will create probably just as adverse a public
15 reaction.

16 THE WITNESS: In a more perfect world
17 wouldn't it be interesting if in fact some of our
18 investigative effort in the media went towards
19 unearthing those kinds of public statements where there
20 is an inconsistency at the top instead of finding the
21 thing at the bottom.

22 It has always struck me as strange that,
23 in my view, the single crucial thing that the Province
24 of New Brunswick did in 1980, '82 they never talk
25 about, I have never heard a politician of either party

1 acknowledge that what New Brunswick did in '80, '82 was
2 freeze for 40 years all access to Crown land, that the
3 total harvest that can be taken from Crown land was set
4 at one number and nobody could build a new mill to use
5 wood from Crown land until one closes. It could only
6 be done by trade-off, that we have reached the limit,
7 that was it, it can rise beyond that.

8 I have never heard anyone say that and
9 yet I regarded their willingness -- it was incredible
10 at the time, I still don't believe they did it, but
11 they passed a law that froze it and allows the forest
12 to be restructured underneath that industrial base to a
13 level it could -- the land with the right forest on it
14 could support three times the industry, but in the next
15 40 years it can't support any more.

16 But it is an example of what you just
17 described. They don't tell you about that at all.

18 It is, incidentally, the first and most
19 crucial step towards sustainable development, is to
20 recognize just exactly that, where is the limit and
21 let's set it. Even in that context they are unwilling
22 to say: Here's what we did, we froze development.

23 MR. TURKSTRA: I'm not going to ask any
24 questions about that subject. Mr. Chairman, I am just
25 going to not touch that with a ten-foot pole.

1 THE WITNESS: We departed substantially
2 from the audit I guess, sir, but it is an issue that I
3 think is relevant because to make these things work,
4 given the spacial field that we are dealing with here,
5 we have got to have credibility at all levels.

6 The seventh point that appears in the
7 summary had to do with this business of a technically
8 sound approach to integrating. It may be that it was
9 being done outside the timber planning process, as you
10 suggested earlier; however, if it is, it wasn't evident
11 to me that it was. But if it is, there was no feedback
12 that said: By the way, here is how you change the
13 timber management plan in order to close on these
14 things.

15 That's an area that I think is the
16 biggest one that we should be dealing with right now.
17 Making timber supply forecasts is -- well, a freshman
18 would do it regularly in class. Now, I probably look
19 at 50 or 60 a week in terms of the class work and in
20 work with companies, so that they are common, that's a
21 tool that's comfortable to use. We need to build that
22 kind of comfort and capability in the other areas so
23 that we can at least see what it is we are trading for
24 what.

25 The eighth point that's made in the

1 summary is that area regulation is suited to the
2 Ontario management problem and indeed they apply it in
3 a reasonable and proper manner. There are two points
4 here. I would add, first, that there is a need to
5 extend area regulation, not extent, but extend to
6 include the timber and other values so that we have a
7 coherent view of what we are producing out there.

8 The reason that I think that area
9 regulation is a reasonable approach here is that what
10 has evolved already through the system of constraints
11 would be a nightmare to work with any other approach.
12 It is a relatively straightforward thing to remove an
13 area, a doughnut around a lake and simply take it out
14 of the MAD base.

15 If, for instance, you used an approach to
16 volume regulation, when you took that doughnut out you
17 would have to know what particular stand types were in
18 it, what stage they were at, and where they were in the
19 harvest queue and a whole bunch of other things in
20 order to make an adjustment.

21 You would have to have a different amount
22 of information, much more information about not just
23 the area but about all of the forest that was on it.
24 So that technically it is going to be much simpler
25 to -- in my view, to overlay a volume forecast on the

1 current area in which is relatively comfortable with
2 all of the constraint approaches than it will be to
3 adapt any kind of a volume regulation approach which
4 would be a veritable nightmare given the number and
5 current existing extent of the constraints.

6 The tenth point was, in my opinion the
7 forest resources inventory is reasonably applied to set
8 the initial condition, it's the current state of the
9 forest for each forecast that's made when they do a
10 calculation of the allowable harvest -- allowable area
11 to be harvested, that for forest level forecasting and
12 forest level dynamics, that that is a reasonable use
13 for it.

14 The tenth point. We do better always I
15 think when our errors are exposed to us, when we have
16 the least opportunity to slide around them, encapsule
17 them so that the evaluation of management I think
18 should -- we should make it as rigorously quantitative
19 as we can: Have you delivered the wood of the quality
20 at the cost, have you delivered the kinds of habitat in
21 the places at a reasonable cost so that these things
22 can be viewed.

23 That if we want to -- if we manage to
24 close on a goal, then we should be as rigorous as we
25 can and at the start that's not going to be very

1 rigorous, but it can be better than it is now, in my
2 opinion. We need to relate somehow or other the actual
3 performance of the system we are trying to manage back
4 to the goal so that we can say we are closing or we are
5 not closing, and ask the question: If we are not, why
6 aren't we.

7 It would eliminate, unfortunately I
8 suppose in some respects, about 90 per cent of the
9 discussion that goes on if we could do that. The
10 business of: Are we running out of wood and all of
11 those questions would quickly disappear with that kind
12 of an approach.

13 The eleventh point that appears in the
14 summary was the -- that there is insufficient or was
15 insufficient -- in 1986 insufficient recognition of
16 markets as the major determinant in the annual drain on
17 the forest. Then we make a nice plan, whether it's
18 volume regulation or area regulation it wouldn't make
19 any difference, but markets over time will determine
20 how much actually gets called.

21 Plans that were initiated in 1980 for a
22 five-year period would have forecast harvest levels up
23 here (indicating); whereas in reality, the early 80s
24 operated at -- plants in Canada operated at about 50
25 per cent capacity on average, which means that only 50

1 per cent of the forest that was supposed to get cut got
2 cut and the forecast was invalidated in the first five
3 years.

4 We, at our own risk, ignore those
5 impacts, they're real. We can plan theoretically that
6 when it comes to actually making it happen that unit
7 forester is only going to be able to market the wood
8 that the markets are willing to take, and there needs
9 to be clearer recognition of that, so that every five
10 years when the market has caused an underharvest or
11 occasionally an overharvest, although there is more
12 protection against an overharvest than there is against
13 an underharvest curiously, although both have the same
14 impact on the dynamics of the resource. We need a
15 system that feeds back and adjusts for that.

16 The last point, the twelfth point that
17 appears in the summary had to do with the level of
18 responsibility and accountability in the forest
19 management system, the whole structure, the
20 bureaucratic structure. When you move away from the
21 unit forester the concern about managing the resource
22 diminishes rapidly and the concern about providing the
23 correct administrative reporting on things done in
24 support of managing the resource rises very rapidly.
25 That's always going to be a problem in any place as

1 large as this province and particularly where the
2 forest at issue here is remote from the political
3 setting.

4 MR. TURKSTRA: Q. Well, thank you. I
5 think we are done with slides are we; Dr. Baskerville?
6 I will take you out of the spot light for a minute.

7 The Ministry then in October, '86
8 produced a response to the audit.

9 MR. TURKSTRA: And, Mr. Chairman, I've
10 suddenly recognized that I didn't have an exhibit
11 number for that.

12 THE CHAIRMAN: Exhibit 58.

13 THE WITNESS: My system has broken down.

14 MR. TURKSTRA: (handed)

15 THE WITNESS: Okay.

16 MR. TURKSTRA: Q. And in that document,
17 Dr. Baskerville, there is an attempt to summarize your
18 observation under five points as the principal five
19 recommendations, and you have had an opportunity to
20 consider those?

21 A. Yes.

22 Q. And can you give the Board an
23 observation about the statement of the problem in terms
24 of those five issues?

25 A. Yes. Some time after the audit was

1 submitted, some months after I met with a group who
2 presented those five points, a group from the Ministry,
3 and my reaction was that they had accurately nailed the
4 essential concerns, that those five encompass the kinds
5 of things that were most important, in my view, to
6 improve the actual delivered management in the forest,
7 in the province.

8 I guess I would go a step further because
9 I remember saying it at that time, that one of my
10 reactions was that I had got -- that the message that I
11 had wanted to convey was now being spoken back in a way
12 that I could recognize in someone else's words that
13 suggested that the correct impact had occurred.

14 Q. And if those five areas were
15 adequately addressed, what would your response be in
16 terms of the end result as you see it?

17 A. The most fundamental response --
18 result in my view would be an improved management of
19 the forest and the system would work better, but the
20 important point would be that the actual control of
21 forest development would be better.

22 Q. Did you also get to deal with the
23 Ministry's proposed action plan that was designed, as I
24 understand it, to come to grips with those five points?

25 A. It was discussed, yes.

1 Q. It was discussed. And was expression
2 of that as an action plan your words or was that the
3 Ministry's words?

4 A. The Ministry's words. They had
5 already formed a group to begin looking at reacting to
6 designer reaction, I guess is a better way to say it,
7 and that group had met several times and they presented
8 this and said: Is this the direction, have we captured
9 the essence. And my reaction was: Yes, that those
10 five points capture the essence and that the kinds of
11 actions discussed there are the right kinds of actions,
12 if you can actually make those things happen out in the
13 world.

14 THE CHAIRMAN: Well, let's, if we might,
15 just try and get this clear.

16 When they proposed the actions that they
17 were going to take, or the direction that they were
18 going to go in to try and address your five concerns,
19 were you asked for your comments on the efficacy of
20 those proposed actions, or did they do it in sort of
21 just an informative way and said: Here are the
22 problems you have identified, here is what we propose
23 to do; or did they go further and solicit your comment
24 or blessing, if I might put it that way, on what they
25 proposed to do?

1 THE WITNESS: They certainly didn't
2 solicit a laying on of hands or anything like that.

3 I would say that they asked: Have we got
4 the right points, if we in our view take these kinds of
5 actions which we believe are the kinds of things that
6 are within -- easily within our purview to make happen,
7 are they the kinds of things that will lead to the
8 correction of the five points that you've raised.

9 And we discussed them in broad -- because
10 they are relatively broad things, it is how those
11 actually will turn out down to the level of the unit
12 forester that it's going -- that would determine
13 whether or not they worked.

14 We discussed the general approach that
15 would be used in actually implementing those actions,
16 how they thought they could do it, but it had mostly to
17 do with: Had they understood the problem correctly and
18 were these the kinds of things that were addressed to
19 that. And my reaction again was that, while the
20 language was different than I would have used in the
21 description of the actions, that my understanding was
22 they were still aimed at the right kinds of things,
23 correcting the right things and what would determine
24 how successful they were was the way it was implemented
25 not the goal. The goal that is described here, I

1 accept that.

2 MR. TURKSTRA: Q. Now then next, Dr.

3 Baskerville --

4 MR. TURKSTRA: Now, Mr. Chairman, I
5 don't know if Dr. Baskerville's witness statement has
6 been made an exhibit yet; has it?

7 THE CHAIRMAN: I don't believe it has.
8 Exhibit 972.

9 ---EXHIBIT NO. 972: Witness statement of Dean Gordon
10 Baskerville.

11 MR. TURKSTRA: My copy has a slight
12 annotation on the first page, Mr. Chairman, in terms of
13 the -- I don't know how many copies there are of this
14 floating around, but I will see that there is a proper
15 copy left with the Board with the file number on it.

16 Q. Again, Dr. Baskerville, you had an
17 opportunity to review part of the preparation of the
18 witness statement and an opportunity to consider it in
19 its final form, and does that statement reasonably
20 accurately summarize your views; the witness statement?

21 A. Yes, I believe it does.

22 Q. And have you had an opportunity to
23 read through, without detailed study, the Class
24 Environmental Assessment of Timber Management that has
25 been filed by the Ministry in this hearing?

1 A. I would hesitate to say that I had
2 read it in the sense that I hadn't annotated it as I
3 went. I have gone through it, yes.

4 THE CHAIRMAN: Mr. Turkstra, we have some
5 difficulty with Dean Baskerville's opinion on the Class
6 EA per se.

7 MR. TURKSTRA: I'm not going to ask him
8 that question, sir.

9 THE CHAIRMAN: Because of the 18 months
10 of evidence that has gone towards that very document--

11 MR. TURKSTRA: No.

12 THE CHAIRMAN: --in terms of amending
13 portions, adding elements that don't appear in the
14 written document itself.

15 MR. TURKSTRA: I'm just going to ask him
16 to confirm that he had not studied or analysed the EA
17 and was not giving any opinion on it.

18 THE CHAIRMAN: Okay.

19 MR. TURKSTRA: If that's all right.

20 THE CHAIRMAN: I thought you were going
21 at it from a different direction.

22 MR. TURKSTRA: No, sir. No.

23 Q. I take it then that you have not
24 conducted a study of the environmental assessment or of
25 the evidence that has been called at this hearing?

1 A. No.

2 Q. And haven't formed any opinion on
3 that in any detail?

4 A. That's correct.

5 Q. Based on your audit and your
6 discussions following the audit, are you able to help
7 the Board with trying to bring to focus what you would
8 consider to be the most essential differences, if any,
9 between your opinions and the Ministry of Natural
10 Resources? Is there a one paragraph highlight that you
11 could give to the Board?

12 A. The difference would probably center
13 on the ability to deliver management to the ground and
14 to confirm and evaluate that delivery; not in
15 structure, not in process, not in the kind of things
16 considered, I think that the issue of integration has
17 to be dealt with, the -- what it comes down to is: How
18 do you get a goal, an objective that you could
19 determine whether or not you were approaching it, how
20 would you achieve integration. There is certainly no
21 question about whether or not we in this country need
22 to do that, the issue is how and how quickly.

23 So I think the differences are not
24 professionally deep, they have to do with the
25 application, making the thing happen: How do you

1 make -- at the scale that it has to happen on 40 some
2 million hectares of forest, how do you make forest
3 management actually come to ground.

4 Q. Now then, Dr. Baskerville, you have
5 the excerpt of the evidence at a scoping session that
6 was held in Thunder Bay?

7 A. Yes.

8 MR. TURKSTRA: Q. And Mr. Chairman, I'm
9 referring to the excerpt from Volume 159 that was sent
10 to me by Ms. Devaul and I'm specifically referring to
11 the pages starting on page 2 where the Board gave me a
12 series of seven questions to address to Dr.
13 Baskerville.

14 THE CHAIRMAN: Sorry, what page was that.

15 MR. TURKSTRA: Under page 2 of Volume
16 159.

17 THE CHAIRMAN: Okay.

18 MR. TURKSTRA: And, Mr. Chairman, I think
19 we dealt with question one which were terms of
20 reference, how we undertook his task, the methodology
21 that he followed. Subject to the Board's questions, I
22 didn't intend to ask any more questions about that.

23 The second question related to the
24 uncertainty in data and I believe that Dr. Baskerville
25 in particular in his answers to the Board's questions

1 dealt with the point at which you start to work whether
2 or not you have the data.

3 The third question related to
4 quantifiable measures to relate habitat to wildlife
5 populations, and I think we have dealt with that.

6 The fourth paragraph 15, I believe the
7 question about whether the whole system requires an
8 complete overhaul or whether there are specified areas,
9 I believe he has answered that for you today.

10 And with regard to paragraph 24 of his
11 witness statement you indicated -- or you referred to
12 the fact that Dr. Baskerville said in his statement
13 that many actions proposed by the Ministry of Natural
14 Resources could address the problems, and I think he
15 has dealt with that as best he can this morning for
16 you.

17 Paragraph 25. You noted that in
18 paragraph 25 Dean Baskerville indicates that he's not
19 able to assess whether actions taken by MNR that call
20 for future studies and so on responded to the audit.
21 You asked to know why he could not indicate this.

22 Q. And I take it, Dr. Baskerville, that
23 you simply haven't been asked to come back and analyse
24 those actions in terms of whether they actually meet
25 the terms of your audit; right?

1 A. Yes. If I learned one thing from the
2 audit it was the danger of trying to come to a
3 conclusion without having really searched down through
4 the system and I simply haven't got the kind of
5 background that would be necessary to reach that kind
6 of a conclusion.

7 MR. TURKSTRA: Now, Mr. Chairman, there
8 were a number of statements of issues given to Dr.
9 Baskerville through my office and at this point I
10 believe that, as best I can, I have taken Dr.
11 Baskerville through the additional oral explanations
12 that were required, except for those that seem to me to
13 be questions that were Dr. Baskerville was being
14 alerted to that would come in cross-examination. And
15 if I'm correct in that, then I think I'm finished.

16 If I'm not, if there are parties -- if
17 I've misinterpreted that or if the Board feels there
18 are some areas that I have left out, I would be happy
19 to deal with them, but...

20 THE CHAIRMAN: No, the Board feels that
21 this is adequate as far as the direct examination goes.

22 With respect to cross-examination, we are
23 going to commence very shortly with the
24 cross-examination. We would like to have an estimate
25 based on the direct examination to whatever degree

1 accuracy we can elicit at this time from counsel as to
2 how long they might be so that we can ensure that the
3 parties who are next in line are ready to go and we
4 won't waste any of Dean Baskerville's time with
5 downtime waiting for another party to get in line.

6 Ms. Swenarchuk, how long do you think you
7 will be?

8 MS. SWENARCHUK: I think one to two
9 hours, Mr. Chairman, and that I think has created a bit
10 of a problem for Ms. Kleer who was not expected to be
11 on today, but I think will be back for the afternoon
12 and I don't know how long she plans to be.

13 THE CHAIRMAN: Okay. Are you saying she
14 is not ready to go after you are completed?

15 MS. SWENARCHUK: She wasn't this morning,
16 whether she will be this afternoon I don't know.

17 THE CHAIRMAN: Well, perhaps she can
18 commence in any event.

19 MS. SEABORN: Mr. Chairman, I think Ms.
20 Kleer is just in one of the rooms outside the hearing
21 room.

22 THE CHAIRMAN: Right. Would you mind
23 asking her--

24 MS. SEABORN: I could ask her to come in.

25 THE CHAIRMAN: --if she would come in so

1 we can ascertain whether she will be ready to go?

2 Mr. Hanna, how long do you think you will
3 be at this point?

4 MR. HANNA: Well, Mr. Chairman, I can
5 assure you that it won't be the three days in total. I
6 would hope that we could be finished in two days, Mr.
7 Chairman, but I would like to reserve the possibility
8 of going over that slightly. But certainly I don't
9 believe it's going to be the whole three days.

10 THE CHAIRMAN: Very well. Ms. Kleer?

11 MS. KLEER: Hi.

12 THE CHAIRMAN: We may reach you later
13 this afternoon as you probably heard.

14 MS. KLEER: As I understand. I expect
15 to be about two hours in cross-examination.

16 THE CHAIRMAN: Two hours. Thank you.

17 Mr. Cosman?

18 MR. COSMAN: Yes, Mr. Chairman. My
19 present estimate is half day subject of course to what
20 happens in advance of my cross.

21 THE CHAIRMAN: Very well. Who else have
22 we got. Ms. Seaborn?

23 MS. SEABORN: One to two hours, Mr.
24 Chairman.

25 THE CHAIRMAN: And I'm sorry, could you

1 give us your name again, sir?

2 MR. CURTIS: Yes. David Curtis
3 representing the Ontario Professional Foresters
4 Association.

5 THE CHAIRMAN: That is the Professional
6 Foresters Association?

7 MR. CURTIS: Yes.

8 THE CHAIRMAN: Is that of Ontario or --

9 MR. CURTIS: OPFA, Ontario Professional
10 Foresters. I estimate a half hour to 45 minutes.

11 THE CHAIRMAN: Thank you. And the
12 Ministry?

13 MR. FREIDIN: I will stick with my
14 estimate, half a day to a day depending on what
15 happens.

16 THE CHAIRMAN: That's a one hundred per
17 cent error ratio, Mr. Freidin.

18 MR. FREELAND: Well, I did it much more
19 succinctly this time.

20 THE CHAIRMAN: It looks like, at the
21 outside, giving people the benefit of the doubt, we
22 would be about five days from this point in time. So
23 that will give us all of Wednesday, all of Thursday,
24 and Monday, Tuesday. We should be complete by
25 Wednesday, if everything goes as scheduled, possibly

1 late Tuesday.

2 THE WITNESS: I can do a day of Christmas
3 shopping then.

4 THE CHAIRMAN: Very well. We will
5 proceed on that basis.

6 MR. TURKSTRA: Can I raise another
7 matter?

8 THE CHAIRMAN: Yes.

9 MR. TURKSTRA: Mr. Chairman, I have
10 spoken to some of the counsel about the propriety of my
11 talking to Dr. Baskerville while he is being
12 cross-examined. Under ordinary circumstances, were I
13 representing a party, I of course wouldn't do that, but
14 my understanding is that a significant part of my
15 mandate is to virtually be Dr. Baskerville's lawyer
16 here and the goal of that is to ensure that when he
17 returns to New Brunswick that he is comfortable that
18 what he has explained to the Board is his opinion on
19 the matters in which he's being quoted.

20 And, in order to do that, I wouldn't want
21 to start my re-examination without having understood
22 whether or not he feels that he was ambiguous or
23 somehow halfway finished a question during his
24 cross-examination.

25 The counsel I spoke to had no objection

1 to my talking to Dr. Baskerville on that basis because
2 I don't represent a party, while he's under
3 cross-examination; in other words, that the normal rule
4 would be lifted.

5 I wasn't able to speak to every party on
6 that. I want to raise it now and also to be sure that
7 I wasn't doing something that the Board might have an
8 objection to.

9 THE CHAIRMAN: No, I think in the
10 circumstances the Board finds that approach entirely
11 reasonable and I assume that none of the counsel
12 present are objecting to that proposed manner of
13 contact with Dean Baskerville by yourself.

14 Is that correct, counsel?

15 (no response)

16 Therefore, anybody else who may object
17 has lost their opportunity to so object.

18 MR. TURKSTRA: Thank you.

19 THE CHAIRMAN: Very well. As I said, we
20 are going to break at a quarter to two.

21 All right. I think we will break now for
22 again 20 minutes. If somebody wants to go and get a
23 cup of coffee or something like that they can do so,
24 and then we will proceed to the break for the lunch
25 hour, and we can commence with you, Ms. Swenarchuk, at

1 that time.

2 Thank you.

3 ---Recess taken at 12:00 p.m.

4 ---On resuming at 12:30 p.m.

5 THE CHAIRMAN: Thank you. Be seated,
6 please.

7 CROSS-EXAMINATION BY MS. SWENARCHUK:

8 Q. Dr. Baskerville, the documentation
9 that we will be using for these questions will be the
10 audit, the compilation of transcript, which I believe
11 Mr. Turkstra provided to you, and your witness
12 statement.

13 A. Herman, do you have the compilation.
14 I do not have it with me.

15 MR. TURKSTRA: You are speaking of this?
16 (indicating)

17 MS. SWENARCHUK: (nodding affirmatively)

18 MR. TURKSTRA: (handed)

19 MS. SWENARCHUK: Q. Now, we were
20 interested yesterday and again this morning when you
21 talked about the cap on mills that was enacted in New
22 Brunswick and I take it that was done when you were the
23 Assistant Deputy Minister; is that right?

24 A. Yes, it was done while I was there,
25 yes.

1 Q. And you described it this morning as
2 the first and most crucial step to sustainable
3 development in New Brunswick. And I wonder if you have
4 an opinion as to what would be the crucial step to
5 sustainable development in forestry in Ontario?

6 A. I would say that the first step would
7 be to get a reasonable credible forecast by management
8 unit for the Crown land and by whatever means for the
9 non-industrial freehold land of the production
10 possibilities.

11 The thing that led to the decision in New
12 Brunswick was a rather sudden conclusion that there was
13 no point in arguing whether or not there was a problem
14 with wood supply, it was clear that the volume of wood
15 would be available indefinitely, but that for a period
16 of about 20 years the quality was going to be - that
17 period being in the year 2005 to about 2020, somewhere
18 in there - that the quality of raw materials that would
19 be available was going to be much lower than at
20 present.

21 And it took a long time, it took 10 years
22 for a realization to dawn, but when it dawned it dawned
23 suddenly and at that point it was clear that the thing
24 to do was to freeze entry to the Crown forests at
25 least. So that there if there is an analogue

1 situation, the thing that is missing here is a
2 biologically credible forecast built from the forest
3 level back up of what the production possibilities are
4 to determine whether or not 'steady as she goes' will
5 in fact be sustainable.

6 Q. And given that we have phrase the
7 question in terms of forest's sustainable development
8 in the forests of Ontario, would your opinion extend to
9 the need for forecasting of forest uses other than
10 timber?

11 A.. Yes. To the extent that you want to
12 manage them from the point of view of having
13 continuously available whatever, certain populations or
14 capabilities in the forest to -- for aesthetic uses or
15 whatever else, if you want to produce those
16 sustainably, then you have to have some means of
17 assessing in advance when you are likely to be short of
18 them.

19 So that the lead time has to be at least
20 the lead time that it takes to produce the condition
21 you are looking for.

22 Q. And would I be correct in assuming
23 that absent that forecast you are not in a position to
24 suggest whether a cap similar to the one used in New
25 Brunswick would be at this time required in Ontario?

1 A. That's correct.

2 Q. Now, Dr. Baskerville, quite a number
3 of my questions will have to do with clarifying
4 matters. You will be aware, having reviewed the
5 transcript, that what you meant by certain statements
6 has been the subject of considerable debate here, and I
7 will be referring to some of those transcript
8 statements from other witnesses in order for you to
9 have an opportunity to clarify for all of us for the
10 record what that is.

11 But along those lines, beginning with
12 your testimony yesterday - and you will appreciate that
13 we can only operate from notes with regard to
14 yesterday's testimony, we don't have a transcript - but
15 just at the beginning when you were questioned about
16 your assignment to the audit and how you conceived of
17 the task, if my notes are approximately correct, I
18 believe you indicated that you saw the task as
19 evaluating the process and procedure for managing Crown
20 forests in Ontario, and that you believe it would not
21 be possible to carry out a numerical evaluation, so
22 that you decided you would examine some parts of it.

23 Now, can you indicate why you felt you
24 could not carry out a numerical evaluation; does this
25 have to do with the databases available, or the scope

1 of the enterprise, what was the reason?

2 A. Partly time. There was a concern of
3 the then Minister that some evaluation be produced in a
4 reasonable length of time but mostly because, in the
5 absence of having a clear understanding of what the
6 goals -- what it was we were trying to achieve from the
7 forest, without knowing what those were, going out to
8 measure was not an easy place to start. To determine
9 what to measure you first had to know what it was
10 people were expecting to get.

11 So that the logical place, in my view, to
12 start was with an analysis of the process of management
13 and whether or not the process was consistent with
14 reaching the goals and, then once you had done that and
15 established the goals in the process, to go and see in
16 a subsequent step whether or not the actual forest was
17 closing on the goal.

18 But to measure it without knowing what
19 the goals were first was not a reasonable place to
20 start.

21 THE CHAIRMAN: But just to clarify that,
22 in order to look at the process, did you expect to find
23 the goals articulated within the process or --

24 THE WITNESS: Yes, I did.

25 THE CHAIRMAN: You did. So you had to

1 look at the process to determine what the goals were
2 and then go to the forest to determine whether or not
3 the goals had been achieved?

4 THE WITNESS: That would be a logical
5 approach, yes.

6 THE CHAIRMAN: Okay.

7 MS. SWENARCHUK: Q. All right. And that
8 second step I take it would be a more numerical
9 evaluation; is that right, actually looking at data
10 from the forest?

11 A. At some point a complete review of a
12 management unit, in the manner in which I have
13 described, would involve a numerical comparison to
14 close the feedback loop that would be set out to
15 achieve this goal: You took these actions to cause
16 this response in the system, the system has now
17 responded for five years, measure it and see if it's
18 done what you said it would do. So that measurement
19 becomes a very important part once you begin to manage.

20 Q. And now am I right in assuming that,
21 first of all, you did not find the goals established
22 with sufficient clarity to do that; is that right?

23 A. Yes, I think that is a fair
24 statement, that the goals that I encountered would be
25 difficult to in fact go and assess unambiguously.

1 Q. Now, with regard to area regulation
2 you have indicated that no other province uses area
3 regulation, and I wonder if you could tell us why that
4 is the case?

5 A. Simply, I guess I wouldn't have any
6 idea why all the others don't use it. A lot would have
7 to do with the people who were in the management
8 department, management branch of the relevant forestry
9 departments at the time that crucial decisions were
10 taken.

11 The approach is most provinces use things
12 like that Von Mantel formula that we discussed
13 yesterday or a thing called Hansliech or Austrian,
14 there were a number of these formulas, and used a
15 formula to calculate an allowable cut and that was a
16 form of volume regulation.

17 You will find each province, that the
18 emergence of area regulation was in fact related to
19 that. Originally in the older manuals there is a
20 volume check that is, if I remember correctly, much
21 similar to a Hansliech type formula but it was an
22 actual check to it. Other provinces seemed to have
23 moved, when they moved to actual intervention and
24 trying to structure their interventions, to volume
25 regulation.

1 Q. All right. There was discussion
2 yesterday, and perhaps the principle is as stated by
3 you on page 54 of Exhibit 970, where you indicated
4 that".

5 "Area regulation as applied by MNR does
6 not give an even-flow of raw materials."

7 A. That's correct. Area flow applied by
8 any one would not give an even-flow of raw materials
9 except in the condition when you had reached the
10 managed state.

11 Q. And...

12 A. Yes, I am sorry.

13 Q. Go ahead.

14 A. No, that is fine.

15 Q. All right. And the Chairman asked
16 you a question to the effect that if there isn't an
17 even-flow of raw materials from a particular management
18 unit, can that lack of even-flow be adequately dealt
19 with by using wood from other units.

20 And you indicated that to answer that
21 question you would require to know what is on the other
22 unit, but your gut feeling was that that might be
23 possible. Now, do you recall that exchange?

24 A. Yes.

25 Q. Yes. Now, if all the units are being

1 managed by area regulation, isn't there a likelihood
2 that this problem of lack of even-flow will exist on
3 all the units, why would we expect to find wood
4 available in the adjoining units?

5 A. The question, if I recall correctly,
6 was if a unit was short would there be enough wood to
7 supply it, and from what I was able to determine, if
8 you look on page 56 of the audit -- I am sorry, page
9 57, Summary of the Percentage of Annual Allowable Area
10 Harvested, you will see that a predominant number of
11 units harvest less than a hundred per cent of their
12 area, and a significant proportion, for conifers for
13 instance harvest looks like, of the units -- 33 units
14 reporting, 22 of them harvested less than a hundred per
15 cent. So of the other 13 were harvesting at hundred
16 per cent or over. If indeed they wanted to borrow
17 there was unused allocated harvest in the other units.
18 That would be the basis of my conclusion.

19 Q. Now, if we could turn to the action
20 plan, Dr. Baskerville, and more particularly your
21 witness statement. At paragraph 24 you have indicated
22 that many of the actions in the MNR action plan could
23 address problems identified in the audit, and then you
24 list six areas where the action plan possibly addresses
25 them; is that not correct?

1 A. That's correct.

2 Q. And then in paragraph 24 you indicate
3 that you are not able to assess actions, and that is
4 for a total of 9 problem areas identified in the audit?

5 A. Mm-hmm.

6 Q. And then in paragraph 26 you indicate
7 that with regard to non-timber values, the MNR response
8 did not address the concern raised in the audit.

9 Now, do you agree that given the degree
10 to which you had the opportunity to review or analyse
11 the Ministry responses, you are not in a position to
12 indicate to the Board with any degree of certainty
13 whether any of the problems involved in the audit have
14 been addressed and resolved by the Ministry?

15 A. Mr. Chairman, I did not review any of
16 the panels presented by the Ministry nor have I
17 examined in any detail the kinds of actions that have
18 been taken.

19 To judge whether or not particular
20 steps -- the right steps were proposed, whether the
21 steps as actually taken accomplish what was desired,
22 I'm not in a position to comment on. I would only
23 worry a little bit that the absence of proof doesn't
24 mean to the contrary, doesn't means it's the other way.

25 Q. Right, yes. You are simply not in a

1 position to assess?

2 A. That's correct.

3 Q. Right. Now, if we could look at the
4 compilation of transcript, beginning at page 4530 --
5 and these pages are not always in correct order but I
6 think in this case they are.

7 Now, on these pages your finding in the
8 audit that it was clear on each of the FMA units that
9 the company desired evenflow of raw materials to be
10 maintained during the conversion to a balanced
11 age-class structure and in these cases there was a more
12 or less serious inconsistency within the objectives.

13 And that statement in the audit was put
14 to Ministry witness Mr. Osborn and he was asked if he
15 agrees with the statement and he said he was very
16 surprised at it. And I wonder if you could, meaning
17 read it into the record again, review his comments on
18 the remainder of that page and into the middle of the
19 next page and give us your comments on his
20 disagreement.

21 MS. SWENARCHUK: Is this transcript
22 available to the Board?

23 THE CHAIRMAN: It might be.

24 MRS. KOVEN: Is it 26?

25 THE CHAIRMAN: Is it volume --

1 MRS. KOVEN: 26.

2 MS. SWENARCHUK: Well, we only have the
3 page numbers here.

4 MR. TURKSTRA: Mr. Chairman, it's one
5 bound copy of the pages in the transcript that was
6 referred to --

7 MR. COSMAN: I'm sorry, I can't hear you,
8 Mr. Turkstra.

9 MR. TURKSTRA: Mr. Chairman - sorry it
10 was just automatic, I'll sit down - it's a compilation
11 of all the pages in the transcript where Dr.
12 Baskerville's views are discussed and it was bound
13 together and we were under the impression that the
14 Board --

15 THE CHAIRMAN: I think it was originally
16 sent to us or forwarded to the Board, but unfortunately
17 I'm not sure we have it before us today.

18 MS. SWENARCHUK: Is it accessible, Mr.
19 Chairman, because I intend to refer to it fairly
20 regularly.

21 THE CHAIRMAN: Well, we will make sure it
22 is accessible. Would you bring Ms. Devaul in, please.

23 MS. SWENARCHUK: The other question is
24 maybe one of the other parties could lend a copy to the
25 Board.

1 THE CHAIRMAN: If one of the other
2 parties can, then if we don't have one here we will
3 have one xeroxed in the meantime to be returned to that
4 party.

5 MS. SWENARCHUK: It's fairly long.

6 MR. TURKSTRA: I've got some yellow
7 highlighting in it, Mr. Chairman, but I think that is
8 all. (handed)

9 THE CHAIRMAN: Does any other party have
10 an additional copy that we might use for having it
11 xeroxed while we are entertaining this examination?

12 Okay. Well, we will go with this at the
13 moment. When Ms. Devaul appears we will try and see if
14 she has got a copy around here somewhere.

15 MS. SWENARCHUK: All right.

16 Well, we are at page 4530 and actually
17 the statement from the audit that I just put to Dr.
18 Baskerville begins at the bottom of the previous page
19 and then Dr. Osborn's comments continue until line 11
20 of 4531.

21 THE CHAIRMAN: Mr. Turkstra, this hasn't
22 been given an exhibit number either; has it?

23 MR. TURKSTRA: No.

24 THE CHAIRMAN: Perhaps we should exhibit
25 this so that we can --

1 MS. SWENARCHUK: It's simply pages of
2 transcript. Really either way, Mr. Chairman, it could
3 have one or not have one, I would think.

4 THE CHAIRMAN: But it's contained in one
5 volume.

6 MS. SWENARCHUK: Yes.

7 THE CHAIRMAN: Without skipping to
8 various transcripts.

9 MS. SWENARCHUK: Yes.

10 THE CHAIRMAN: I think perhaps we will
11 give it an exhibit number. That will be 973.

12 ---EXHIBIT NO. 973: Volume of transcript excerpts
13 pertaining to Dr. Baskerville.

14 MS. SWENARCHUK: I had assumed that the
15 Board had this actually.

16 THE CHAIRMAN: Well, we certainly have it
17 and we have seen it.

18 MS. SWENARCHUK: It's a question of
19 where.

20 THE CHAIRMAN: It's probably in Thunder
21 Bay as opposed to here, if you want to know the truth,
22 up in our retiring room. That doesn't help us much for
23 here, but if we could proceed using the one copy.

24 MS. SWENARCHUK: Yes.

25 THE CHAIRMAN: During the lunch hour we

1 will have it reproduced. Okay.

2 MS. SWENARCHUK: I expect to be finished
3 by lunch, but perhaps not.

4 THE CHAIRMAN: Okay.

5 MS. SWENARCHUK: Is the Board ready to
6 proceed then?

7 THE CHAIRMAN: Yes.

8 MS. SWENARCHUK: Q. So could we have
9 your comments on Mr. Osborn's disagreement then,
10 please, Dr. Baskerville.

11 A. Okay, the statement from the audit
12 reflects the more or less standard approach of industry
13 to seek a constant volume of availability into the
14 future.

15 Now, no one recognizes more than industry
16 that they will not utilize it completely, but the mill
17 manager or the mill president wants to know that the
18 amount of material that it takes to run the mill at
19 capacity will be available year in year out into the
20 future for at least the lifespan of the mill.

21 So that for industry the issue is not
22 what area is available to cut this year, it is what
23 volume will be delivered to the mill.

24 The problem here is that in the
25 conversion period, from the time you begin in a wild

1 forest until you bring it to that state where you have
2 a balanced even-aged structure, there will be a
3 variation; the volume that is delivered will not be the
4 same year by year.

5 The three company FMAs that I viewed all
6 had created their own volume forecasts and what they do
7 is seek to see whether the volume that would be
8 delivered from area regulation is at all times above
9 the volume that they would need; and, if it is, then
10 it's the same thing as having their -- having a
11 constant flow.

12 As long as the total amount that would be
13 available in the lowest year during the transition is
14 sufficient, then they are all right; if it drops below
15 that, then they foresee problems in terms of potential
16 problems in terms of delivering wood. So that the
17 problem they are concerned about is assurance that the
18 raw material to operate the mill will be available in
19 the amount that they require each year.

20 The answer seems to suggest that mill
21 requirements will change over time and, in fact, they
22 would and they change in a step; a mill doesn't
23 gradually use more wood, if a new line is installed and
24 suddenly it uses much more wood or much less. The
25 advent of thermal mechanical pulp reduced the drain in

1 a number of places.

2 Yes, I agree with Dr. Osborn that those
3 things will happen and that the industry would normally
4 have a better idea, again, than most of us as to what
5 the potentials are for increasing mill size or reducing
6 wood volume used by virtue of changing the process,
7 altering the mill itself.

8 Whenever they do that, though, they would
9 still seek the assurance that the volume that would be
10 available to them from the sources that they have to
11 hand would consistently year by year deliver the amount
12 that, whatever the configuration of the mill is they
13 could feed it.

14 I don't see an inconsistency between the
15 two statements really. Osborn appears to be speaking
16 of whether or not the mill changes technologically and
17 even if it changes technologically, the mill manager is
18 going to want whatever the demand he has, he seeks
19 delivery of raw materials in the amount that will
20 sustain that mill at that level.

21 Q. Do I take it then that the likelihood
22 of technological change does not lead you to amend the
23 statement you made with regard to inconsistency in the
24 objectives on the FMAs that you studied; is that
25 correct?

1 A. No, I don't think I would -- I might
2 expand it, but I don't think I would alter it. There
3 are two possibilities here. There will be a company
4 who perceives that it can penetrate a market further
5 than it has and wants to expand, so it wants to -- if
6 it's harvesting at this level and processing at this
7 level, it wants to open a new line and raise it to a
8 higher level, the output of the mill to a higher level.

9 If in fact the wood supply forecast, the
10 timber availability forecast show that is possible,
11 that's something they will explore. If the amount of
12 wood available is in fact just marginally sufficient,
13 the kinds of options they explore are ways to get
14 higher recovery of the wood that is available to them
15 so that they can actually sell more paper using less
16 raw material to generate it, but both of those things
17 happen, you can see them happening in this country
18 today.

19 Q. Could we look now at page 4577 which
20 is another issue from the audit raised with Dr. Osborn.
21 Actually the quotation from the audit on these pages,
22 Dr. Baskerville, begins at 4575 and it has to do with
23 the effect of acceleration and it's possible -- as used
24 by the Ministry.

25 And specifically at page 4576, line 18 is

1 the line from your audit indicating that:

2 "The use of acceleration is creating
3 additional surpluses in a situation where
4 surplus is already a serious impediment
5 to orderly management and acceleration
6 as mandated in current planning is not
7 based on sound biological and economic
8 principles."

9 And Dr. Osborn I believe agreed with that
10 statement with certain provisos which he then added to
11 the record. And I wonder if you could review those
12 provisos on page 4577 and indicate whether you agree
13 with them.

14 A. It is an accurate -- it appears to be
15 an accurate reflection of the problem. What
16 acceleration did, that little diagram I showed
17 yesterday where you had an area, total area that you
18 harvested or you could harvest from and you divided the
19 rotation into it to determine what was harvestable, the
20 impact of acceleration was to make R look smaller, so
21 that the area that you were allowed to harvest in any
22 one year was increased. And it was an artificial thing
23 in order to, I guess, make it possible to do some
24 volume balancing if you had to.

25 The way the thing got implemented was

1 that when the calculation was made at the unit level,
2 the accelerated area, the area calculated at the
3 accelerated rate was always used, so it appeared in all
4 the manuals. So whether or not the area was needed in
5 order to deliver a volume, this area was listed as what
6 was available for harvest.

7 There were several cases where the --
8 well, as you saw in the table that we just looked at,
9 in the majority of the cases, less than the allowable
10 area was being harvested each year, so for most cases
11 there was not only no advantage...

12 THE CHAIRMAN: Thank you, Dean
13 Baskerville. One of the members has received an urgent
14 call, so we are going to have to take a break for 10
15 minutes at this time.

16 Thank you.

17 ---Recess taken at 1:10 a.m.

18 ---Resuming at 1:15 a.m.

19 THE CHAIRMAN: Thank you. Be seated,
20 please.

21 MS. SWENARCHUK: Q. I am not sure where
22 you were in that response, Dr. Baskerville, perhaps it
23 would be best to just recommence?

24 A. Okay. May I use this, Mr. Chairman,
25 it might be simpler.

1 THE CHAIRMAN: Yes.

2 THE WITNESS: Okay. What happens here is
3 that if you make a calculation of the allowed area that
4 could be harvested by dividing the total area by
5 rotation, the total area of working group by rotation,
6 say it came out to be 100 hectares, there is in the
7 manual a procedure that allows you to calculate what is
8 called 'an accelerated harvest'.

9 And the essence of it is that the
10 calculation is area divided by R, what it does is it
11 makes R a little bit smaller and might give, for
12 instance, the indication that you could harvest 105
13 hectares annually instead of 100.

14 Now, what that does is dependent -- what
15 either one of those means is dependent on what is
16 happening in the market, and the piece in the
17 transcript that is referred to, supposing the market
18 only required that 80 get harvested in any individual
19 year, already at this level there was a surplus and
20 that is the term that is used, they have to report --
21 an FMA holder must report surplus, so in this case they
22 are reporting a surplus of 20 hectares, but because
23 this calculation was used automatically, the surplus is
24 inflated by another 5 and they will report a surplus of
25 25 instead of 20.

1 And it seemed to me that it was simply
2 making a problem where -- the most places I encountered
3 this it was already a surplus and to use the
4 acceleration was simply making an existing surplus
5 appear even larger than it was.

6 That causes a concern for industry
7 because the appearance of a surplus invites the unit
8 forester in the district to reassign harvest rights on
9 the part that is surplus, the difference between the
10 actual harvest and the amount that was franchised. So
11 if they make this difference, it takes a bigger
12 difference away than it does with the other. That's
13 what we are talking about here.

14 Q. Right.

15 MR. TURKSTRA: Dr. Baskerville, is your
16 microphone on?

17 THE WITNESS: I'm sorry.

18 THE CHAIRMAN: Ms. Swenarchuck, it is
19 possible with this fancy machine to make a copy of
20 that. I don't know if you want that, and then we could
21 reproduce it for the parties if they want, or if at any
22 time Dean Baskerville wants to use this rico board it
23 supposedly makes a copy of it.

24 MR. COSMAN: We want to see it work.

25 MR. TURKSTRA: Well, I checked it at the

1 break, it works.

2 THE CHAIRMAN: I think he just has to
3 push the green button.

4 MS. SWENARCHUK: It seems to me that the
5 oral testimony covers the issue totally. I do not
6 think we need another piece of paper.

7 THE CHAIRMAN: It is too bad because we
8 are dying to use this fancy thing, but perhaps we will
9 wait until you really want one.

10 MS. SWENARCHUK: You could give Mr.
11 Turkstra some instructions about his redirect, Mr.
12 Chairman.

13 THE CHAIRMAN: We want, Mr. Turkstra, at
14 least one example on that.

15 MR. TURKSTRA: I guarantee it.

16 THE CHAIRMAN: This cost us a fortune and
17 we have never used it in the hearing context yet.

18 THE WITNESS: Now, as I understand what
19 John Osborn has said here is that, in fact, this
20 calculation of accelerated -- the accelerated
21 calculation has been changed, and he agrees that the
22 increase in the surplus is an awkward situation because
23 it invites a reallocation where it may or may not --
24 the market being down in a particular period of time,
25 may or may not be a continuing problem.

1 Now, I need more questions, I think.

2 MS. SWENARCHUK: Q. No, that is fine, I
3 simply wanted your assessment of his provisos.

4 Okay. Most of the questions I have
5 remaining pertain to databases and integrated
6 management, okay, but the first, again, is a
7 clarification question and that's on page 75 of the
8 audit. It's the last sentence of the second full
9 paragraph and it reads:

10 "There is a good resource database in
11 the Ministry, but it has not been
12 converted to a good resource management
13 information source."

14 Now, my first question is: Is that
15 referring to the database on timber only or on all the
16 values of the forest?

17 A. On timber only.

18 Q. Did you, in conducting the audit,
19 examine the databases on non-timber use in the forest?

20 A. Not directly only peripherally.

21 Q. Do you have opinions as to whether
22 those are adequate bases, or are you in a position to
23 express an opinion?

24 A. To the limited extent that I had
25 connection to them, they never reflected anywhere near

1 the degree of accuracy or comprehension of the
2 situation that one was expecting from timber.

3 I would point out that there is a
4 difference between a good database and a good
5 information base. The data consists of numbers; and
6 information is numbers after you have applied
7 intelligence into them; and so what they are, it is not
8 academic distinctions it is important distinctions.

9 The frustrating thing to me here was that
10 the ledger contained literally everything one could
11 imagine, but you couldn't retrieve it. You couldn't,
12 for instance, call for all cutoffs in the last two
13 years that had been in the jack pine stands that had
14 density of over such and such a level and harvested by
15 this method and get that group out, which is the kind
16 of question that a manager frequently wants to ask,
17 because that is the only way he...

18 Q. Is that not a function though of
19 designing the appropriate computer software to be able
20 to get that kind of information out of the data you
21 already have?

22 A. Largely, yes, that's correct. It's a
23 pernicious problem in managing forests everywhere to
24 the extent of ever getting a database that is in the
25 form of what is called now a database by managers so

1 you can integrate to get what you want, for the form
2 you want, for the piece you want. It's coming, but we
3 have some distance to travel.

4 Q. All right. Now, I think you just
5 indicated with regard to non-timber issues in forestry
6 that the data available was less than what was
7 available for timber?

8 A. Certainly what I saw of it. It did
9 not allow interpretation in terms of the structure and
10 function of the system the way that the material
11 available for timber did.

12 It's easier to interrupt timber and look
13 at what had been planned, what was done and the data
14 that referred to it. Where I saw data on non-timber
15 values, they were usually out of context, even out of
16 context of the unit.

17 Q. Now, you had a discussion with the
18 Chairman this morning about moving to a different form
19 of integrated management, and the question of
20 availability of data for that move was part of the
21 discussions.

22 Now, in your witness statement at
23 paragraph 9, with regard to adaptive management, you
24 have indicated that it requires the formulation of
25 quantitative measures for non-timber uses so that

1 testable forecasts could be made and goals can be set
2 and responses evaluated and caught, and that there is
3 enough information available to do this.

4 Now, I had the impression in your
5 discussions of that issue with the Chairman earlier
6 this morning that the discussion was premised on: We
7 can't do very much good in the next 10 years because
8 you don't have the data, but it's important to begin
9 correcting the data, and that's with reference to
10 paragraph 9 of your witness statement.

11 I take it from that that you think there
12 is now sufficient data to move with regard to
13 non-timber values to something more like adaptive
14 management including quantitative goals?

15 A. I tried to make the point yesterday
16 that when one claims to be managing there is a
17 presumption of cause/effect and how the system will
18 unfold. We would like that to be based on some
19 experience and historical experience; and, therefore,
20 reflected in the data, but it is not all there.

21 I would argue that if you believe that
22 you have enough information to begin managing, which
23 means you are now about to make forecasts of the future
24 and that you will take the action either to prevent
25 something or to cause something, then it would be wise

1 to do so, in what I have outlined here as adaptive
2 management, which would cause you to watch diligently
3 for the first signs that presume we are in error.

4 To put it in a different way, if you have
5 enough information or data that you think you can
6 manage, then you have enough to begin adaptive
7 management. There is no difference where you start,
8 there is only a difference in how you react once you
9 start.

10 THE CHAIRMAN: Who makes the judgment
11 that you have or have not enough to start? How do you
12 go about making that judgment, put it that way?

13 THE WITNESS: I wonder, Mr. Chairman, if
14 we actually make that judgement consciously. We
15 simply, some day someone says the forest must be
16 managed and we will have a management plan, so we will
17 start with what data we have got, that is what we will
18 use.

19 Most of these things seem to happen that
20 way. If you ask whoever: Is the decision made
21 consciously; yes, usually with some annotation that:
22 Wouldn't it be nice if we had some more data and what
23 should it be.

24 The forestry resource inventories that
25 were carried out in Canada in the late '40s and '50s

1 were all designed -- proclaimed to be a basis from
2 which we could begin management in each province. I
3 think every province did one, possible PEI did not, but
4 it might be the only one that did not. Does that
5 address the question?

6 MS. SWENARCHUK: Q. Well, let's just go
7 on a little further. I note from your discussion with
8 the Chairman something like that. The crucial thing is
9 we look at data and leave integration as it is now for
10 10 years, we will look at the same data 10 years from
11 now. We are gathering data but not on the crucial
12 things with regard to data on non-timber values.

13 What are we gathering in Ontario and why
14 is it not on crucial things? What should we be
15 gathering?

16 A. If you will allow me, I can speak to
17 the issue, that I didn't investigate thoroughly, I do
18 not mind answering that.

19 THE CHAIRMAN: Well, we will have to bear
20 in mind that your answers are not necessarily based on
21 a thorough examination as well.

22 THE WITNESS: There is a tendency
23 particularly in -- well, in stands with respect to
24 forests, with respect to small herds or small
25 populations, with respect to animals for us to

1 concentrate on the thing that we can comprehend. We
2 can all see -- I can walk around in the stand and see
3 and measure, but I can't see a forest except
4 numerically. We have that problem in space.

5 When he talk about moose population,
6 there is a tendancey to do a moose count in one
7 locality where you can do it systmatically and fly over
8 and count tracks and follow the tracks until you find
9 the moose at the end of it. Literally, literally we
10 wide up with what amounts to anecdotal data out of
11 context of the whole population that we are talking
12 about whether it is population of stands, which is
13 forest, or population of moose, and the anecdotal data
14 provides some comfort usually in that it verifies that
15 the thing is there, but does not provide the scale --
16 at the scale we need to assess the system, does not
17 provide any information on that scale.

18 And few people who gather that
19 information are comfortable when someone says: Well,
20 you found this on these 100 hectares, we have got
21 45-million so divide 100 into 45-million and multiply
22 that and that is how many moose we will have.

23 Q. But isn't that true almost with
24 extrapolation of any sets of data?

25 A. It sure is.

1 THE CHAIRMAN: And isn't the only way you
2 can address that is if you have the technology and
3 throw enough money at it so you can count everything
4 and then be a 100 per cent sure that your results are
5 accurate?

6 THE WITNESS: I do not expect to live long
7 enough where we will spend that kind of money on our
8 resources. I will argue that if you try to
9 characterize any of these, for instance in the moose
10 population, if I can use that as an example,
11 characterize its dynamics - we are a relatively simple
12 population - dynamimcs related to habitat that it is in
13 fact possible to sit down, it has to be possible to sit
14 down with the right five or six people and construct a
15 forecast right now that would show the relationship of
16 moose to habitat and to test that in the sense that I
17 showed sensitivity analysis yesterday, that would then
18 focus on your gathering of data on the part of the
19 system where errors most likely get us into trouble.

20 THE CHAIRMAN: But which, as a scientist,
21 you would consider that you're absolutely correct.

22 THE WITNESS: The reason that I think I
23 migrated away from science - so many of my colleagues
24 have I think defrocked me as a scientist now - is just
25 that, that you cannot have correctness and preciseness

1 in the sense that a scientist seeks it; it is not
2 relevant in the sense of managing a whole 100,000
3 hectares, you want an accurate reflection of the
4 dynamics out there and not a precise evaluation of some
5 little tiny part thereof.

6 And that's really a hard thing for a
7 scientist to grasp. It took me several years of pretty
8 hard coming to grips with the reality to finally
9 concede that science itself by looking at itty-bitty
10 parts were never going to get the parts put together,
11 that someone had to start at the other end and blend
12 the whole structure, look and start from the other end,
13 analysing downwards.

14 MRS. SWENARCHUK: Q. So if I simplify
15 all of that in that way, are you saying then the
16 crucial things on which data should be gathered but is
17 not being gathered include large scale ecological
18 dynamics?

19 A. I think that is a fair statement. If
20 one were to, again to use an example like a
21 population -- annual bird population, it is very
22 difficult to examine the dynamics at the scale they're
23 actually happening out there in the forest, it's very
24 difficult to observe and get measures; and we
25 consequently do not start. If we make the forecast, we

1 are forced to try and measure the response there, but
2 that would be the part that I think would be missing
3 here and generally little in trying to make the
4 connection.

5 MS. SWENARCHUK: I know you are planning
6 to stop at a quarter to two. I am...

7 THE CHAIRMAN: Is this a convenient time?

8 MR. SWENARCHUCK: It is.

9 THE CHAIRMAN: Okay. We will stop now
10 until 3:15, and then we will continue on at 3:15,
11 uninterrupted as much as we can, to allow your
12 cross-examination, Mrs. Swenarchuk, so not to allow
13 your cross-examination to come in in such a disjointed
14 fashion.

15 We apologize, but we are certainly paying
16 attention.

17 MRS. SWENARCHUK: Thank you.

18 ---Luncheon recess taken at 1:35 a.m

19 ---Upon resuming at 3:17 p.m.

20 THE CHAIRMAN: Thank you. Be seated
21 please.

22 MRS. SWENARCHUCK: Q. So we were talking
23 about data collection just before we broke, Dr.
24 Baskerville. Just one more question in that area.
25 Looking at paragraph 9 of your witness statement, when

1 you said in the last line:

2 "There is enough information to do
3 this..." meaning using adaptive
4 management and quantitative measures for non-timber
5 values, you mean then that within the Ministry there is
6 a sufficient database on the non-timber values areas to
7 permit the beginning of this process?

8 A. Yes, I think that's an accurate
9 interpretation of what I meant, the distinction being
10 that we couldn't start from scratch and do the thing
11 fullblown tomorrow the way we might like to get to, but
12 there is there now the necessary and sufficient base to
13 begin and to begin in a manner which would result in
14 systematic learning of the managers in how to do it.

15 Q. I want to turn now to non-timber
16 values in general. The first issue has to do with some
17 clarification. I don't think it's necessary to
18 actually turn to this transcript because it is just a
19 very brief question, but at one point in the hearing
20 when Mr. Monzon was testifying, some confusion arose as
21 to whether one of your comments in the audit pertained
22 to the plans or to strategic land use planning and
23 district land use planning documents.

24 I am referring to page 1124 of the
25 transcript, but we can clarify that by just looking at

1 the audit at page 84. The issue here pertains to the
2 last sentence in the second paragraph:

3 "Much of planning material in this area
4 would be better described as creative
5 writing about the resource, but as
6 a realistic attempt to control resource
7 develop over time to achieve objectively
8 stated values."

9 Will you just confirm that that statement
10 was made by you in relation to the plans themselves
11 that you examined?

12 A. Yes, that's correct, that refers to
13 the way in which that material, those elements of the
14 resource were handled in the planning documents.

15 Q. The timber management --

16 A. That's correct.

17 Q. All right. Now, before we try to
18 clarify some of the integration issues as they have
19 arisen in the transcript, my reference point here is
20 your paragraph 26 in your witness statement, and
21 particularly the last sentence of that paragraph.

22 "The fact that MNR will continue to
23 have separate plans for different values
24 that cover different geographic areas
25 indicates that they are not planning to

1 use integrated management."

2 And that is a more concise statement of
3 the issue than I think I have seen before. Keeping
4 that in mind then, I would like to refer back to some
5 of the evidence we have heard from the Ministry
6 witnesses about how, in their view, integration is
7 achieved.

8 If you would look first of all at the
9 transcript excerpts, looking at 1962, 63 and 64.

10 MR. TURKSTRA: Sorry?

11 MRS. SWENARCHUK: 1962 is where it
12 starts, the exhibit number of the transcript, 973.

13 MR. TURKSTRA: These are organized by
14 witness. Which witness are you asking at?

15 MS. SWENARCHUK: It was Monzon and
16 Douglas.

17 MR. TURKSTRA: Okay. What pages?

18 MRS. SWENARCHUK: 1962, 3 and 4.

19 Q. Now, at page 1962, Mr. Freidin was
20 examining the witnesses at this point and referred to
21 page 12 of your audit where you stated a fundamental
22 problem with the intergration of non-timber values.
23 And then the witnesses -- his question to the witnesses
24 is at 1963, lines 3 and 4. My question is: What is
25 the mechanism or mechanisms through which these

1 programs come together?

2 And I think I will just leave it to you
3 to review their answers on that page and on the
4 following page 1964, and I am prepared to stop with the
5 answer at line 22 of page 1964, Dr. Baskerville.

6 So one of the key points that was
7 emphasized - and this is at the top of 1964 - is that
8 all these plans go through the district manager and the
9 district manager has to make sure there is a proper
10 reflection of all concerns.

11 And then in the next paragraph you stress
12 the need for a positive attitude and in the paragraph
13 after that everyone will have an opportunity to get
14 into the action, and I don't think it's viewed as an
15 constraint.

16 I take it you had an opportunity to
17 review the transcript excerpts before you prepared your
18 witness statement, and I take it then that you don't
19 accept that these mechanisms are enough to amount to
20 integrated resource management; is that correct?

21 A. I suppose we could get into a
22 semantics argument about what we mean by integrated
23 management. If you define integrated management as
24 discussing the issues amongst the representatives of
25 the various elements, then clearly this would represent

1 a form of intergration.

2 On the other hand, if you mean a system
3 where it examines the interventions to be taken in the
4 natural system and the response of each of the elements
5 of the natural systems to those interventions in order
6 to determine which mix, in fact, is most acceptable,
7 then it would not be integrated management.

8 Q. In your paragraph 26 you were using
9 the latter definition; were you?

10 A. Exactly.

11 Q. All right. Now, a similar question
12 arises at pages 3131 and 3132 of the transcript, and
13 these were questions from Mr. Freidin to Mr. Armson.

14 MR. TURKSTRA: Excuse, which page?

15 MRS. SWENARCHUK: 3131.

16 Q. Perhaps you would like to read down
17 to the end of 3133, Dr. Baskerville?

18 A. Yes.

19 Q. So --

20 MR. TURKSTRA: I was not sure if he
21 finished yet.

22 MRS. SWENARCHUK: I'm sorry.

23 Q. So really he was reviewing then your
24 own comments about what you observed in preparing the
25 audit and the degree of discussions that had occurred

1 amongst various Ministry people.

2 And I take it then that you did not find
3 that structure of discussion sufficient either to
4 amount to the type of integrated management that you
5 advocate; is that correct?

6 A. Essentially. The part of the audit
7 that is quoted there, I referred to the discussion that
8 I had the first day at each unit where I had an
9 opportunity to speak with the equivalent of what is now
10 the planning team.

11 There was a wildlife person, a recreation
12 person, land, fish and a timber person present. In
13 fact, the majority of the cases, four of the six, it
14 says here, I came to the conclusion that those people
15 believed - the word 'believed' is operative I think -
16 believed that they were, in fact, building some kind of
17 an integrated trade-off.

18 They were not able to demonstrate it,
19 what had been traded for what, but there was a belief
20 that it had been done. And in one of those cases I
21 think that if I could have spent a couple of days with
22 the two people involved I could have become very
23 convinced that they had done it.

24 It occurs to me reading this that --

25 THE CHAIRMAN: Sorry, just going back to

1 your last comment. You are saying that they believed
2 that they were accomplishing integrated management,
3 they couldn't demonstrate it--

4 THE WITNESS: Exactly.

5 THE CHAIRMAN: --but did you say that had
6 you had the opportunity to spend a couple of days with
7 a couple of them you might have been convinced that
8 they indeed practised it?

9 THE WITNESS: I think that --

10 MS. SWENARCHUK: He said with one case.

11 THE WITNESS: Pardon?

12 MS. SWENARCHUK: You said in regards to
13 one case.

14 THE WITNESS: In one case.

15 THE CHAIRMAN: In one case.

16 THE WITNESS: The case I am thinking of
17 both the timber manager and the wildlife manager, one
18 had been there 15 years and the other 13 years, working
19 on the same unit, a relatively small unit, both clearly
20 had a very good acquaintance across the whole unit,
21 they literally -- they came as close to anybody I saw
22 to having seen everything.

23 THE CHAIRMAN: This is Timmins?

24 THE WITNESS: It was Plonski Forest, yes,
25 near Timmins.

1 THE CHAIRMAN: Okay.

2 THE WITNESS: The timber person and
3 wildlife person had extensive discussions in terms of
4 the pattern of harvesting. Once the area was chosen
5 for how much would be harvested, the allocation -- the
6 actual laying out of that area, the hundred hectares
7 that was allocated for harvest this year, the way that
8 was distributed spacially on the map was the subject of
9 considerable discussion with respect to the wildlife
10 person's knowledge of the local moose herds.

11 The difficulty here was that there was no
12 way you could convince nobody who wasn't there, it's:
13 you had to be there to understand, sort of thing.

14 I had confidence because of the way they
15 talked and the manner in which they communicated and
16 the obvious understanding they had of the forest that
17 they were working with. I think in retrospect if I had
18 gone out with them to the woods for a couple of days I
19 could have become a believer too.

20 I would not have been able to explain to
21 anybody else that you have got this many moose and you
22 got them for giving up this much timber, but I would
23 have been able to believe that there was a trade-off
24 had been made in a fairly rational way there.

25 THE CHAIRMAN: All right. But are you -

1 and I am sorry to pursue this, but I want to understand
2 actually what you are saying - are you indicating that
3 dealing with these two particular individuals, because
4 of their specific knowledge and the specific data
5 within their grasp, they would have been exercising
6 your concept of integrated management without changing
7 the process drastically from what they had been charged
8 to do in producing a timber management plan?

9 THE WITNESS: That is a neat way to put
10 it, because that is exactly what happened, it just did
11 not get written down.

12 THE CHAIRMAN: Right. Forget the
13 traceability side of it, I am more interested at this
14 point in whether they accomplished your form of
15 integrated management with the tools that they had,
16 with the system they were charged to produce the plan
17 under and, in this particular case, it was possible
18 because of the particular knowledge or expertise of the
19 individuals involved?

20 THE WITNESS: I would say that there had
21 been an honest effort to do it and more than
22 reasonable probability that it had, in fact, been a
23 accomplished.

24 THE CHAIRMAN: And if they had been able
25 to document it in a way that would have been

1 satisfactory to you they would have just about gone the
2 whole way. Is that more or less what you are saying?

3 THE WITNESS: If it had been in a
4 documented form it would be easy to show someone else
5 and show how it had been done. But as it exists now it
6 is a little bit like telling a person to create some
7 art and I would like a nice picture, but I am not going
8 to tell you in advance what my preferences are, so you
9 might create the picture on the wall behind you and I
10 won't like it.

11 THE CHAIRMAN: Do you like it?

12 THE WITNESS: No, sir.

13 MR. TURKSTRA: The witness is under oath,
14 Mr. Chairman.

15 THE CHAIRMAN: It is not often we get art
16 critics in here as well.

17 MRS. SWENARCHUK: And they are never
18 under oath.

19 THE WITNESS: I don't claim to be an
20 expert in that area. The point being that when there
21 is something that contains inherent values we need some
22 guidelines so that the person who is trying to do the
23 creating has some chance of coming close to the target,
24 we need initially some bounds.

25 The difference that I saw there I think

1 would be best characterized, every place else the
2 beginning, the evidence of integration the first word
3 was 'stop': stop doing this with timber and then
4 something else will be okay.

5 And in that case the initial words that I
6 got were: Start doing this in order to improve moose.
7 And that difference in approach, I think, is
8 significant, that there is a paradigm shift that we
9 need in order to gain entry to integrating these things
10 that we would have to integrate, it's to move away from
11 beginning our prescriptions with the word 'stop' and
12 beginning them with the word 'start'.

13 THE CHAIRMAN: But wouldn't you be doing
14 that in a resource plan, a wildlife resource plan for
15 moose? You are dealing with a timber plan, but if you
16 were a resource manager on the wildlife side, wouldn't
17 you be saying to yourself, or asking yourself the
18 question starting off with --

19 MS. SWENARCHUK: I will be coming to
20 that, Mr. Chairman.

21 THE CHAIRMAN: Will you? Okay. Sorry.

22 THE WITNESS: I think I would like to
23 speak to it at the moment anyhow.

24 MS. SWENARCHUK: Dr. Baskerville, I'm
25 going to put to you the Ministry's position on exactly

1 that question through its experts.

2 THE CHAIRMAN: Let Ms. Swenarchuk do it
3 in her fashion.

4 THE WITNESS: Yes.

5 MS. SWENARCHUK: Q. A couple of
6 questions arising from my original question here. What
7 do you think led the Ministry people in that particular
8 management unit to be using this approach which
9 apparently was different from what you found in the
10 other five?

11 Was it, for example, the long experience
12 they had in that particular management unit? What was
13 the difference that led to this change, if you know?

14 A. The kinds of differences that I
15 noticed there were that that team had been together for
16 15 years or 13 years, I guess it was, and none of the
17 others had been in place even for a full five years,
18 that there had been recycling, somebody in the team had
19 changed.

20 Neither the wildlife person nor the
21 timber person in that particular instance, they were
22 mature enough people that they weren't cowed by models
23 that -- or by manuals that said do it this way. They
24 were attempting to use guidelines as guidelines and to
25 insinuate their professional judgment into their

1 decisions.

2 So there was a maturity of the
3 individuals professionally and a rather long-standing,
4 comparatively, familiarity of those individuals with
5 the piece of property that they were working on.

6 Q. That brings me to another issue which
7 I plan to deal with later, but let's raise it here. On
8 page - I don't think it's necessary to turn to this, I
9 can just put this sentence to you - but for the record
10 on page 15952 of the transcript excerpts, Ministry
11 witness Mr. Hynard commented that with regard to the
12 plan that you examined in your audit he said:

13 "I doubt that there would have been
14 planning teams involved with those
15 plans."

16 Now, Dr. Baskerville, you have described
17 the unit, at least, the Plonski Forest unit as a team
18 planning process, and it appears to me that in the
19 other plans that you examined they too had been put
20 together by an interdisciplinary group of individuals;
21 is that not correct?

22 A. No, that isn't really strictly
23 speaking correct. The timing of the audit was such
24 that the manuals that were in force were the green and
25 brown version, I cannot remember the exact date, 1976,

1 somewhere around there, the Forest Management Agreement
2 and an older manual, it can't be that old.

3 Q. '80 perhaps?

4 A. It's simpler if I just hold them up.
5 That one called Forest Management Manual which was 1980
6 which was for the FMAs, and the manual Forest
7 Management Plan Requirement for Ontario 1977 which was
8 the Crown.

9 So that the plans had been prepared using
10 those manuals which did not require at the time that
11 they were prepared the existence of a planning team.
12 However, the concept of a planning team was clearly
13 being introduced at that level by the time I did the
14 audit but in advance of the manual that came out in
15 mid-1986 which, in fact, specified the existence of
16 such a team.

17 What I did, knowing that they were moving
18 in that direction and that I think it is reasonable to
19 assume that they had communicated in a small group like
20 that, I asked, before I went to each unit, that they
21 gather for the first day the people who either were
22 there or would have been there had it been done that
23 way so I could have a discussion with them.

24 Q. Okay. Was it your impression that
25 something like a team approach to the planning had

1 occurred in those units or was it a very individual
2 product?

3 I am asking that in light of your
4 comments on page 12 of the audit where -- my reading of
5 that was that there had been communications amongst the
6 different disciplines as the plans were developed even
7 if it was not a formalized team planning structure?

8 A. It requires an evaluation of what I
9 think happened and I don't believe that there was an
10 example where I would have thought no one had been
11 consulted outside, it became a matter of degree and
12 particularly of the substance that they discussed, the
13 substance of the communication between the various
14 elements.

15 Q. Well, isn't the degree of
16 communication and trade-off perhaps really the key to
17 the process as opposed to the formal structure of the
18 planning team if there was something like an informal
19 structure there before?

20 In other words, does the concept of a
21 planning team necessarily mean that better intergration
22 is going to be achieved?

23 A. That one is little easier to deal
24 with. The creation of a team does not necessarily mean
25 that they'll do the things you created them for. I

1 suppose if we use sports as an analogy it would mean
2 that you could just hire all the best players and we
3 would be certain to win; it would ignore the fact that
4 they do have to, in fact -- there is something bigger
5 than the elements itself there.

6 So the answer is, yes, that it is the
7 interaction of the intellucts that is crucial here not
8 the formal existence of a team.

9 In the case that we spoke of earlier, the
10 two people communicated clearly about the influence one
11 had on the other in their design, the part of the
12 resource design that they were engaged in and that is
13 the thing that has to happen, and I would argue that it
14 needs to happen in a manner that others can see what
15 the results were by virtue of some measure.

16 Q. The next issue I wanted to discuss
17 with you starts at page 9679 of the excerpts.

18 MR. TURKSTRA: Is that the same panel of
19 witnesses?

20 MRS. SWENARCHUK: No. This would have
21 been Panel 7, and it is Mr. Williams cross-examining
22 for the Ontario Federation of Anglers & Hunters.

23 THE WITNESS: Nine six, how many?

24 Q. 9679.

25 MR. TURKSTRA: Dr. Baskerville, it is

1 about in the middle and it is the panel of Clark,
2 Kennedy, McNichol, Beechey, Ward and Pyzer.

3 THE WITNESS: Mine seem to be out of
4 order here.

5 MR. TURKSTRA: They run by witnesses.

6 MS. SWENARCHUK: They are largely in
7 order with just a few exceptions?

8 THE WITNESS: 9679?

9 MS. SWENARCHUK: That's right.

10 THE WITNESS: I've got it.

11 MS. SWENARCHUK: Okay.

12 Q. Now, this was a discussion really
13 involving both Mr. Clark and Mr. Pyzer of the Ministry,
14 and I will just characterize it before I ask you to
15 read it, about how the different management plans,
16 fisheries, wildlife and timber, all come together or
17 whether they do.

18 And the question from Mr. Williams begins
19 at Line 19 of 9679, and if you would review from that
20 question --

21 A. I'm sorry, say it again.

22 Q. Starting at line 19 of 9679, if you
23 would review on that page 80 and 81 to the end of line
24 20 on page 81.

25 A. Yes.

1 Q. Now, Mr. Pyzer was definitely very
2 enthusiastic by the end of that quote in discussing
3 synergism and coming up with six plans out of three. I
4 take it that that description does not change your view
5 that we don't have the practice of integrated
6 management here as you stated it in your witness
7 statement?

8 A. That statement wouldn't change my
9 mind. If I actually spent time with the people I
10 might. There is a couple of parts of this that are
11 worth commenting on. The question itself:

12 "Is timber management consistently
13 winning over fish and wildlife."

14 It is curious in this context because I
15 don't know how one would tell. If timber management
16 meets all the constraints that the other two place on
17 it, is it winning or not, since the only measure here
18 is whether or not the constraints have been put in
19 place it seems me pragmatic that you determine either
20 of those directions.

21 THE CHAIRMAN: And if you are producing a
22 timber management plan, where do you think the emphasis
23 in a timber management plan would fall?

24 THE WITNESS: Clearly on timber.

25 THE CHAIRMAN: And if you produced a

1 wildlife plan or a fisheries plan, the same could be
2 said of those two other resources; is that correct?

3 THE WITNESS: Yes.

4 THE CHAIRMAN: And that is not
5 surprising?

6 THE WITNESS: No, not in the least. It
7 should be concerning, if they aren't doing it on the
8 same piece of ground and talking about the same levers
9 of control, because if the harvest pattern is one of
10 the main levers of control then there had better be
11 consistency or conformance of the geographic pattern.

12 I cannot tell from the discussion by Mr.
13 Pyzer whether or not that constitutes -- he says that
14 there has been synergism in the development of several
15 plans but he does agree and that in fact they are
16 achieving fish targets through the timber management
17 planning process, but does not suggest in any way how
18 those targets are measured and how progress is measured
19 towards them.

20 MRS. SWENARCHUK: Q. Did you have any
21 further comments on this.

22 A. No.

23 Q. Okay. Let's look at this question of
24 goals. First of all, if we could turn back to the
25 beginning of the transcript excerpts at page 774 and

1 the witnesses here were Mr. Monzon and Mr. Douglas, and
2 I believe specifically Mr. Douglas on page 774

3 MR. TURKSTRA: Three sevens, and a four?

4 MRS. SWENARCHUK: No, two sevens and a
5 four.

6 MR. TURKSTRA: Thank you.

7 MRS. SWENARCHUK: Q. First of all, the
8 discussion was about optimization, but we will leave
9 that for the moment.

10 Perhaps you want to look at that, Dr.
11 Baskerville, on page 772 at line 17 with regard to
12 optimization the witness referred to it as:

13 "A mathematical operations research
14 jargon."

15 And then later on, line 24 and 25,
16 indicated that you in your audit were using it as a
17 mathamatically defined terminology.

18 Then on the next page with regard to
19 non-timber values at lines 9 to 15, the witness
20 indicated that:

21 "The Ministry seeks to achieve a
22 variety of objectives on the forest
23 in the broader sense of the term and in
24 some cases that is going to require
25 qualitative judgment and, in fact, we do

1 do that."

2 A. Sorry, where are you?

3 Q. Page 774.

4 A. Okay.

5 Q. Starting at line 9.

6 A. Yes.

7 Q. To about 18, the next paragraph was:
8 "Our desire will be to make these
9 assessments crisper and better over time
10 and we will seek to do that."

11 My question is: Do you agree that these
12 judgments will always require qualitative judgments?

13 A. I think the answer to that has to be,
14 yes, and the reason is that even if it were possible to
15 render the entire structure to some measurable units so
16 that we could measure fish populations by size, deer
17 populations, timber and so on, it becomes essentially a
18 qualitative judgment to set how those will be traded
19 off, one against the other.

20 You cannot run an optimization until you
21 have said that: I want to get the optimum mix of fish,
22 moose and timber, here is how I will trade them off.
23 And if you -- that has to be fixed. Once that is done
24 there is a unique solution which says: Here are the
25 set of actions which will give you that optimum that

1 you seek, and it will be a unique solution.

2 So you cannot escape the qualitative
3 parts of it, in fact, I would not want to see us try to
4 deal with this at first from a purely optimization --
5 mathamatical optimization approach. We have not
6 thought nearly enough about the measures of the things
7 that we are comparing nor of the way we value those
8 things. We have not got measures that reflect our
9 values.

10 THE CHAIRMAN: Which comes first in terms
11 of: Do you add up the various quantative elements, set
12 them aside and then at some point do the qualitative
13 judgment as to how you will trade them off and then
14 plug in the numbers; or do you start off with the
15 qualitative judgments and then go about getting your
16 quantitative elements with which to measure against the
17 qualitative judgments?

18 THE WITNESS: I believe the safest
19 approach is to try and get some measures that we can
20 consistently talk about. For instance, the Federal
21 Fisheries Board makes a big deal about how many fish
22 they catch at a fish ladder above the pool below my
23 house and that's irrelevant to me.

24 My measure of success is that if I can
25 release one fish per four days of fishing, four

1 mornings of fishing, that's marvelous, that's all I
2 could ever ask for.

3 Now, if they have more or less fish, my
4 reference point is going to be --

5 THE CHAIRMAN: The end of your fishing
6 line; isn't it?

7 THE WITNESS: Exactly. Now, there needs
8 to be a way to measure these things and in fishing that
9 is in fact -- I fish comfortably in a catch and release
10 area. It doesn't bother me that we have to release all
11 salmon and when you know there is only salmon running
12 you fish with a barbless hook. But there is a measure
13 of -- I'd stop fishing if I didn't hook one in 30
14 mornings in a row. I think I would probably stop going
15 down, it is fun but it isn't that much fun.

16 I don't know what that margin would be.
17 I just thought of this this minute, but it would be an
18 interesting -- there must be one and that would be a
19 measure of my willingness to trade power generation
20 from the dam which influences my fish. There must be a
21 trade there, but we couldn't make the trade just on
22 saying how I like fish. We could easily do it on the
23 probability of me hooking one in, say, eight hours of
24 fishing. Do you see the distinction I am drawing?

25 THE CHAIRMAN: (nodding affirmatively)

1 MS. SWENARCHUK: Q. So are you saying
2 then that the qualitative element of the judgment comes
3 with respect to how we value the "various resources",
4 but then you would prefer to see quantitative
5 assessments after that point as to how the resource is
6 actually being effected by our actions; would that be
7 right?

8 A. Yes. Once we have some measure of
9 the way the resource, the particular resource is used
10 and valued, then it becomes feasible to say: Well, he
11 can't have a static hook, three per week and a half of
12 fishing, you can only get one, because we want to
13 generate power or we want to do something else and some
14 tradeoff is made, but it is done in a manner that I can
15 believe that there was again someplace because it has
16 been identified rather than me simply told that the
17 fish aren't there and we get into all the arguments
18 that fishermen do about whether or not the fish are in
19 the river.

20 THE CHAIRMAN: But then there is a
21 greater or a higher level of tradeoff in your example
22 and that is whether the objective is power generation
23 or providing fishing opportunities?

24 THE WITNESS: That's an absolute perfect
25 one for this because in fact when the people of Boston

1 get up in the morning, if you happening to be fishing
2 at Murphy Bar, when they start flushing their toilets
3 and getting ready to go to work your probability of
4 catching a fish is very high because the water rises
5 quite dramatically below the dam, so many of us try to
6 be out there by 5:30 or 6:00 in the morning.

7 There are tradeoffs. And if it were the
8 other way around, all the rest of the day when the
9 power isn't being generated, the water goes low and the
10 fishing is very poor. Why not increase the flow of
11 power of water all day even if it is not generating in
12 order to create fishing.

13 THE CHAIRMAN: Yes. But I guess the
14 point I am trying to get at, Dr. Baskerville, is how do
15 you integrate the different levels of objectives? Just
16 using--

17 THE WITNESS: Oh, I see the point.

18 THE CHAIRMAN: --that one example. You
19 know, there is an objective for power generation, that
20 affects many and there may be a societal value in that,
21 there is also an objective in providing recreation or
22 fishing opportunities, so you have those juxtaposing
23 against each other, but at the local level, such as
24 your level as the fisherman, you may have other values
25 that you are trying to trade off against and how do the

1 lower values --

2 THE WITNESS: Aggregate upwards.

3 THE CHAIRMAN: That's right. How do you
4 do that in your form of integrated management?

5 THE WITNESS: To a whole province?

6 THE CHAIRMAN: I mean, when you are
7 taking a look at the undertaking before the Board it is
8 timber management across much of the province with one
9 of the principal objectives being for a continuous wood
10 supply for industry.

11 THE WITNESS: I would argue that it is
12 possible to aggregate those upwards. I'm not sure how
13 much meaning they have when you get beyond the size of
14 a piece of ground where you are actually carrying out
15 and implementing control, beyond that you're averaging.

16 But if you are talking about the
17 management unit and saying: On this management unit we
18 balance fish, recreation days and successful hunter
19 days or whatever in timber and we have got -- this
20 tradeoff is what we were looking for and that's
21 consistent with provincial objectives, and then I would
22 take those -- the degree to which you had met those
23 objectives and sum those upwards rather than --

24 THE CHAIRMAN: Yes, but that's a problem
25 you would acknowledge in a situation in which the

1 Ministry exists under right now where they are managing
2 certain wildlife resources provincially such as moose,
3 deer, et cetera, and managing timber in terms of
4 individual management units--

5 THE WITNESS: Mm-hmm.

6 THE CHAIRMAN: --to a certain extent,
7 integrating the two.

8 MS. SWENARCHUK: Let's look at exactly
9 what the Ministry witnesses said about that.

10 Q. First of all, if you look at page
11 15445 at line 16, Dr. Euler for the Ministry --

12 THE CHAIRMAN: Just a sec, we have to
13 find this. Whereabouts is it?

14 MS. SWENARCHUK: 15445.

15 THE CHAIRMAN: Whereabouts in the book is
16 it?

17 MS. SWENARCHUK: Very close to the end.

18 THE CHAIRMAN: Near the end.

19 MS. SWENARCHUK: If the Ministry is
20 satisfied, I will simply read about four quotations
21 from Dr. Euler at various points which I think outline
22 where the targets are and where they aren't and perhaps
23 we can just work from there.

24 MR. TURKSTRA: Well, I would like Dr.
25 Baskerville to have an opportunity to follow along.

1 MS. SWENARCHUK: Just to see the context,
2 fine. Okay, well that's the first one.

3 Q. Do you have it, Dr. Baskerville?

4 A. Yes.

5 Q. 15445.

6 MR. TURKSTRA: It's about an eighth of an
7 inch from the back, Mr. Chairman.

8 MR. COSMAN: It is in the middle of mine.

9 MS. SWENARCHUK: Oh, is it?

10 THE CHAIRMAN: I have got the panel.

11 MS. SWENARCHUK: Euler, Hynard, Allin
12 Greenwood.

13 ---Discussion off the record

14 MR. TURKSTRA: You copy what I have, Mr.
15 Chairman, so you should have the same document I have
16 and it is about that far from the end, 15455. It is
17 the photocopier, she worked downstairs at lunch time.

18 MS. SWENARCHUK: There are some pages out
19 of sequence in the document, but not here.

20 MR. TURKSTRA: The Board is working from
21 a photocopy that was made at lunch of this copy so it
22 should be the same as mine.

23 MR. MARTEL: They are still out of
24 sequence though. The 455 is much ahead of -- or after
25 after 15449.

1 MS. SWENARCHUK: That happened at one
2 point, yes, in mine as well.

3 THE CHAIRMAN: I think some pages are
4 missing. Why don't you just read it...

5 MS. SWENARCHUK: Dr. Baskerville has it
6 for the context.

7 MR. TURKSTRA: Can I give you back the
8 copy that you were using?

9 THE CHAIRMAN: Okay.

10 MS. SWENARCHUK: Q. All right. So this
11 is in response to questions from Mr. Hanna and Dr.
12 Euler was speaking about wildlife targets and said:

13 "Well, it's certainly necessary to have
14 your targets somewhere. Now, we make our
15 wildlife targets in general on the basis
16 of our wildlife management units and
17 that's very adequate."

18 Then at page 15900, and I will read this
19 one again, it is very short, 15900, starting at line
20 12 -- line 9, the question was:

21 "So we develop a measurable goal at the
22 timber management unit level but it may
23 not be documented?

24 DR. EULER: A. In may not be documented
25 in the timber management plan or, yes,

1 that's correct, it may not be documented
2 at that particular level."

3 Then in another point Dr. Euler
4 indicated, this is 15543.

5 MR. FREIDIN: 15..

6 MS. SWENARCHUK: 15543 and here I
7 think -- and this is with regard to the wildlife
8 targets. Dr. Euler at line 16:

9 "I don't think they need to be in a
10 timber management plan."

11 Then at 15447, this is probably the last
12 one.

13 MR. FREIDIN: I take it you want Dean
14 Baskerville to read the entire transcript where it says
15 that he agrees that you have to have quantifiable
16 objectives and he is arguing or making submissions as
17 to where they should be--

18 MS. SWENARCHUK: That's right.

19 MR. FREIDIN: --and that's the issue on
20 which there was disagreement.

21 MS. SWENARCHUK: The final quotation
22 which is at 15448 has Dr. Euler explaining how he sees
23 the difference between the Ministry's approach and Dr.
24 Baskerville's approach and I think that's -- I went
25 through all of those to get to that because I think if

1 Dr. Baskerville has an opportunity to review that this
2 may clarify his opinion of the difference for us. So
3 it is 15448.

4 Where that is anyone's guess.

5 MR. TURKSTRA: Dr. Baskerville has it I
6 think; do you?

7 THE WITNESS: Pardon me?

8 MR. TURKSTRA: Do you have 15548?

9 THE WITNESS: 15448.

10 MR. TURKSTRA: 448.

11 MS. SWENARCHUK: He has it, yes.

12 Do the members of the Board have it?

13 THE CHAIRMAN: Yes. Well, we have one
14 copy.

15 MS. SWENARCHUK: So I think this is the
16 issue we have all been coming to and perhaps Dr.
17 Baskerville can clarify his perspective on it.

18 Q. So can we have your comments on that
19 difference, Dr. Baskerville?

20 A. Difference between...?

21 Q. Dr. Euler's characterization of the
22 difference between the Ministry's approach and your
23 approach to wildlife integration.

24 I take it you are not convinced that
25 their approach will arrive at the kind of integration

1 you are advocating; is that correct?

2 A. If I understand this correctly, the
3 inference is that my approach would manage habitat and
4 that the Ministry approach would set a target for
5 populations and then allow the manager to meet some
6 professional decisions about how to achieve that
7 target.

8 Q. And, Dr. Baskerville, do you agree
9 that in Dr. Euler's characterization he is indicating
10 that those population targets will not have been
11 necessarily stated at the management unit level?

12 A. It is quite clear that they are not,
13 he says they are stated at the wildlife unit level.

14 No matter how we approach this in, what
15 we are saying is that there exists a population level
16 we would like to achieve and that to achieve that level
17 we need consistently over time certain kinds of habitat
18 available, certain kinds of pressure, control of
19 hunting pressure, minimum, those would be the minimum
20 conditions.

21 I have difficulty -- while I talk in
22 terms of habitat management, I have difficulty
23 separating those. I would manage a habitat to achieve
24 a population level and if I claim a population target,
25 the implication is that I am in fact managing the

1 habitat to achieve that target. If there is a
2 difference here, and I guess there is a difference, it
3 is that the population target has been set for a land
4 base that's different than the timber management and it
5 has been set out of context of control of the pattern
6 of harvesting and treatment as it will occur via timber
7 and those two things are the things which have the
8 greatest impact on habitat availability over time.

9 It's the linkage that I would argue for
10 rather than to say that you start with a population as
11 a target or with habitat as a target. Do we start to
12 put it in timber terms where it might be simpler, do we
13 start with a target population of mills and then build
14 the forest habitat to supply them with what they need
15 to be sustained, or do we look at what we can produce
16 in the timber and then build mills.

17 THE CHAIRMAN: Why can't you do it either
18 way?

19 THE WITNESS: You can as long as you do
20 both, that's my point.

21 MS. SWENARCHUK: Q. Now, Dr.
22 Baskerville, you had a discussion with the Chairman
23 yesterday about the question of managing non-timber
24 values on different land bases and with provincial
25 objectives. And my notes of your reply to the Chairman

1 on this is that it would be necessary to disaggregate
2 the global objective to be explicit at the level at
3 which you control and those two schedules, the harvest
4 and the silvicultural schedules, are how you control
5 the future of the harvest.

6 And isn't that a disagreement then with
7 Dr. Euler's views that you don't need to specify, for
8 example, moose levels at the management unit level?

9 A. That I would take to be correct. He
10 does say that the targets are set in general for
11 wildlife management units and that that is adequate.
12 And in what I am shown here in these four pages, there
13 is no evidence of disaggregation.

14 But in order to deliver those things, if
15 you want to actively use timber management to create
16 habitat patterns that will in fact bring a population
17 to the level you want, then you must in fact make them
18 conformable, one on the other, the two areas.

19 Q. Now, changing topics slightly. At
20 page 63 of the audit report, on the third full
21 paragraph, you indicated that a potential problem lies
22 on the FMAs in the manner in which non-timber values
23 are taken into account, and went on to describe it.

24 My question would be: What changes in
25 the management system in your view would be required to

1 improve the management of non-timber values on the
2 FMAs?

3 A. The situation on an FMA is that the
4 agreement holder undertakes to design timber management
5 only and the design of the other issues is to be
6 provided by the Ministry.

7 In that circumstance, if one creates a
8 separation of the two, obviously they are going to be
9 most interested in managing for timber, but they seem
10 to be relieved of any obligation to manage for the
11 other. Almost by definition that means the other
12 whatever it is will enter as a constraint.

13 The question of how you correct that. I
14 suppose that an effective way to do it, if we could
15 imagine the portion for each FMA an assignment of a
16 moose population that needed to be maintained on it to
17 use moose again as well as the timber, and literally
18 entered so that the contract agreement contained that
19 you will not only maintain these mills with this and
20 manage according to these standards, but that you will
21 maintain a moose population.

22 THE CHAIRMAN: Why is that different from
23 the FMA holder having a plan prepared by the company
24 forester but it is reviewed by a planning team which
25 contains a Ministry wildlife biologist, for example,

1 who must apply the precepts of a wildlife management
2 plan which would cover the same land base or the land
3 base encompassed by the FMA unit, and ensure that the
4 timber management plan takes into account the
5 objectives of the wildlife plan, say, to ensure that a
6 moose population within that wildlife unit is
7 maintained.

8 THE WITNESS: In a perfect world, the
9 situation you've described would work. I don't see why
10 it wouldn't.

11 The difficulty is in the way that it has
12 been separated, the team has no stake in the timber
13 management planning and the FMA holder has no stake in
14 the other planning, so that when you try to bring the
15 two together the benefits from the two are going to be
16 awkward. It is easier to see from the point of view of
17 industry, they are developing road systems, they have
18 to plan access to the management unit over quite a long
19 period of time, they have to look at where they would
20 build roads to access timber and then enter a
21 constraint from their point of view which says: You
22 really need to do something on moose a way over here
23 where you don't have a road yet, and those are the
24 kinds of conflicts that in the real world will make
25 that system awkward.

1 THE CHAIRMAN: Yes, but is that 100 per
2 cent valid when before the FMA plan can get approved
3 the Ministry must approve it and the Ministry is also
4 responsible for the management of the other resources,
5 fisheries, wildlife, et cetera?

6 In other words, that may be what they
7 want, but before they can carry it out the one entity
8 that manages all three--

9 THE WITNESS: Mm-hmm.

10 THE CHAIRMAN: --has to say okay. As I
11 understand it, that's what happens--

12 THE WITNESS: Yes.

13 THE CHAIRMAN: --on an FMA unit.

14 THE WITNESS: That is exactly what
15 happens. There is a very high risk in that structure
16 that the FMA holder becomes a sub-rosa extension of the
17 Ministry, that it is not industry at all, it's just an
18 extra arm to go out and do the things that the Ministry
19 would have done anyhow, and that any of the advantages
20 to be achieved via providing area base tenure where the
21 tenure holder develops stewardship in the land and
22 tried to build it because he had a stake I think is
23 diminished to the extent that they are receivers of
24 instruction on what to do.

25 THE CHAIRMAN: Yes, but isn't that part

1 of the rationale, Dean Baskerville, for getting the
2 industry involved in regeneration?

3 Prior to the FMA, the Ministry undertook
4 the activity, now industry is required to put back
5 directly some of what they take out, if they don't do
6 it properly they have to pay for the rerun.

7 What I am suggesting is, is that that is
8 a philosophy which says if you are talking stewardship
9 get involved in more than just extracting, get also
10 involved in putting back and if you don't do it
11 properly it will cost you. There is the incentive as
12 well.

13 THE WITNESS: Yes. Trying to build an
14 ethic, stewardship is an ethic, trying to create an
15 ethic by beating on somebody with a stick and
16 constraining them with rules is awkward, and if you
17 have children you know exactly what I mean. You try to
18 impart ethics to them and the final solution is a
19 spanking if they do something wrong.

20 Somehow or other, the system has to build
21 one way or another an ethical connection between a
22 manager and the system itself and that can be a unit
23 forester on a Crown land, but if we want it to be
24 industry then we must acknowledge that they do in fact
25 have some tenure, some -- that it isn't still part of

1 the public commons.

2 Are you familiar with the story of the
3 tragedy of the commons?

4 THE CHAIRMAN: Hardy?

5 THE WITNESS: Yes.

6 THE CHAIRMAN: Harden, rather.

7 THE WITNESS: Gary Harden. The problem
8 here is essentially one of over-exploiting of commons
9 and the origin of area base tenures. The FMA is you
10 take a company and say: Rather than give you as much
11 volume as you want and let you cut it wherever you want
12 in the commons, we are going to take a piece of the
13 commons out, define it and say that's it, you live or
14 die on that piece.

15 The purpose of that is to address that
16 problem, much the way Harden described it actually, in
17 saying that you now have a piece of the commons for
18 which you better acquire stewardship ethic because if
19 you don't it is you that suffers not everybody.

20 The mechanism which leaves the control
21 still in the hands, the instructions, instructions are
22 passed on how to do it from the Ministry to that
23 person, it doesn't leave them with any ethical interest
24 in managing because they are simply extensions, they
25 behave as extensions, their planning activities appear

1 as extensions.

2 I would argue that in a best world, that
3 when you provided one of those area base tenures that
4 it would be managed much better than any of land
5 surrounding it very quickly because if they were able
6 to internalize whatever they could gain from it, I
7 think the evidence shows that they have the capability
8 to do that.

9 There are some very fine examples of
10 managed forests that I think most people in this room
11 would agree were managed on large free holds and on
12 area base tenures in this country. There are few, if
13 any, examples of what we would all agree were good,
14 well managed forests on publicly managed properties.
15 There is probably a message in there.

16 THE CHAIRMAN: Most of central Europe is
17 getting that message in the last few weeks.

18 MRS. KOVEN: Dr. Baskerville, one thing
19 that I am curious about with respect to your idea of
20 constraints and how they fit into the idea integrated
21 management and adaptive management, is I think the sort
22 of picture you paint is a very optimistic one and it is
23 one that assumes we will have lots of information and
24 people won't make big mistakes.

25 In terms of constraint management, I

1 think one is able to fall back on the arguments somehow
2 that even if everyone fails at what they are supposed
3 to do there are certain protections in that system; in
4 other words, by constraining timber management and
5 putting in such things as your moose hotels or
6 doughnuts around lakes or certain reserve areas around
7 waterbodies, in that event if people don't do what they
8 are supposed to do, no matter how hard they try and
9 what sort of approach they are following, then there is
10 some protection to the environment.

11 And what sorts of protections do you have
12 in the approaches you are looking at that have that
13 same certainty and call them constraints and, you know,
14 all the negatives that they have, but the certainty
15 that they are pieces of the environment that have some
16 protection no matter how well or how poorly various
17 timber management and wildlife management systems might
18 work?

19 THE WITNESS: In answering that I'll come
20 at it from the point of view of the comfort of the
21 owner or the individual who is managing with respect
22 to: Is he getting in big trouble or not.

23 I recently used an example of deer
24 management where on a property you could set down a set
25 of constraints which said do not cut here, do not cut

1 there, do not do this or do not cut along streams, that
2 it is conceivable from what I have seen of the only
3 deer population model that is actually linked
4 energetically to the population -- to the trees, to the
5 pattern of the trees - I only know of one that does
6 that - and when you look at that and look at the way
7 the population is interacting with the habitat, it
8 struck me as entirely plausible that you could meet
9 every one of those constraints over a 30-year period,
10 not violate a single constraint and run the deer
11 population to extinction.

12 So that in having done that, driven the
13 population to extinction, you would have been a perfect
14 manager, absolutely perfect. You would have flawlessly
15 listed all of the constraints and met all of the
16 constraints, but by not measuring the population itself
17 and not recognizing early that the population was not
18 in fact responding to the things you have constrained
19 but to something else altogether, you would have have
20 missed the fact and lost the population. We actually
21 ran a model on 44 square kilometres and tried that and
22 it came close enough that it looked like it might take
23 40 years but it was scary.

24 I come back to the difference that I
25 would feel more comfortable both as a citizen and as a

1 manager if I am trying to maintain the deer population
2 so that my focus is on that population and how it
3 responds or on the rate at which I can successfully
4 harvest it rather than on the constraints. The thing
5 we are managing is not the constraint, the thing we are
6 managing is the population.

7 If we focus as quickly as possible on the
8 population we would not anymore entertain the idea of
9 managing timber by saying: Don't cut trees smaller
10 than 30 centimetres or by some constraint procedure, we
11 focus now on how will -- given timber dynamics and the
12 rate at which you are going to harvest, is that level
13 sustainable, and the key is the amount that you are
14 removing and the places you are removing it and the
15 timing with which you remove it, is the population able
16 to -- of trees able to sustain that harvest.

17 The same thing is true of deer, is our
18 harvest of deer sustainable in that population given
19 the habitat that it is living in.

20 I think the focus is really important,
21 that a constraint approach, no matter how well we
22 applied it, runs the risk that it takes the focus off
23 the thing we are managing. If you have read some of
24 these documents you will see that the concern is rarely
25 in a management plan about whether or not there is more

1 or less deer, only on whether or not the constraints
2 with respect to deer have been met.

3 I submit the issue is not whether the
4 constraints have been met but whether or not the
5 population has been influenced in an acceptable manner.

6 Does that help?

7 MRS. KOVEN: Yes, thank you.

8 THE WITNESS: This all started with the
9 discussion of the FMA; didn't it?

10 MS. SWENARCHUK: Right. This is clearly
11 a joint cross-examination, I am simply adapting.

12 Q. Isn't the additional problem if a
13 constraint approach based on, for example, a featured
14 species deer or whatever, that you are that much
15 further away from all the other species that will also
16 be affected by the timber management actions so that it
17 is complex enough perhaps to integrate and manage for
18 timber and moose, but of course there are about 300
19 species in the boreal forest, and doesn't the
20 management of all those species suffer even more when
21 we have wildlife units and timber management units, the
22 wildlife units have population goals only for one
23 species, moose, and then all the other species somehow
24 trail out behind without specific management
25 initiatives directed towards them at all?

1 A. It's not self-evident that species
2 which aren't targeted suffer more than the ones that
3 are targeted in managing. Say we had only managed for
4 moose, we may or may not be -- well, we are influencing
5 the other species, but we have no idea whether it is
6 positively or negatively.

7 So I couldn't presume to say that it was
8 necessarily worse. There certainly is an influence,
9 and that's part of the problem. If you focus on the
10 constraint, you don't even look for those other things.

11 I am not sure I understand the part of
12 the question about the featured species. If the issue
13 is, if we use a featured species or a guild approach
14 and say: We will take ungulates or a group of
15 ungulates that require similar habitat and we will try
16 to manage habitat for them and assess their population
17 separately, that we will -- the ones we choose, we
18 leave out the others; yes, you do choose some and leave
19 out the others which makes it fairly important to
20 choose some that are fairly broad, choose from across
21 the full spectrum of habitat types initially when you
22 begin to try and introduce it.

23 I don't believe personally that it is
24 possible to approach this from the point of view of all
25 the species at one time and, again, I will use the

1 analogue of timber. In 1980 when we began we actually
2 reallocated, there was a law passed that cancelled all
3 licenses and leases to Crown land in the province and
4 four of us sat down with some models and we reallocated
5 based on linking sets of mills to specific pieces of
6 property.

7 And when we began to do that the first
8 thing we were confronted with was that we had
9 everything from oak stands in the lower St. John valley
10 to spruce bogs on the Acadian Peninsula, probably 60 or
11 80 different species groupings. And we looked at our
12 capability to handle that with the computer capacity of
13 the day and with our ability to characterize the forest
14 and concluded that may be we could handle six or seven
15 of those. In fact, the first cut was made with I think
16 five or six - I forget - somewhere in that range.

17 By 1987, when the second review and the
18 second forecast was being done, that number was up
19 around 30 to 35, so that automatically as the
20 capability to deal with the complexity, as you learned
21 how to deal with a little bit of it you expanded very
22 rapidly and I think that that's the safer way to
23 approach. I would rather take that risk than to leave
24 them out there and pretend that whatever I did was good
25 for all of them.

1 Q. Okay. Leaving non-timber values
2 then, I just have a few remaining questions arising
3 from the audit at page 33 of the audit. You have
4 indicated in the first sentence of the second
5 paragraph:

6 "A better approach to site classification
7 or characterization is needed, both in
8 terms of the volume calculation, and in
9 terms of designing silvicultural
10 regimes."

11 And then further down the paragraph you
12 said:

13 "There is a need for a systematic
14 approach to site as it relates to
15 silvicultural and logging."

16 I wondered if you would expand on that to
17 some extent and indicate what type of improved -- or
18 what would be a better approach to site classification
19 and characterization than you found in the Ministry at
20 that time?

21 A. It might have been more precise to
22 have said a better use of site classification rather
23 than a better approach.

24 It wasn't so much the approach to site
25 classification as the use of the information that I was

1 concerned about. In characterizing the forest, the
2 productive capacity of a hectare and its ecological
3 response at the time of logging, to different logging
4 things, are two really crucially important things in
5 forecasting.

6 The first one, the productive capacity,
7 determines the present yeild curve that the stands are
8 on and the ecological response to different kinds of
9 harvesting treatment in terms of even season, type of
10 logging equipment and whether it's clearfelling or
11 leaving the hardwoods or whatever, those kinds -- the
12 ecological response to those has a tremendous impact on
13 which yield curve that harvested hectare moves to next
14 in the format that I was showing yesterday.

15 So that the issue that I was speaking to
16 there was the characterization of productive capacity
17 and ecological response, ecological response after
18 harvesting in a manner that made the forecasts of
19 timber availability more consistent.

20 Q. And how would you propose that that
21 be done?

22 A. I believe that there exists in the
23 structure right now the kinds of site characterization
24 that would allow that to be done, it is a matter of
25 partly a mechanical problem of overlaying these things

1 so that you get -- on a timber type map you can overlay
2 the site on top of it in a manner that would allow
3 these things to be picked up. Particularly the kinds
4 of site things that were emerging in '86 and were
5 appearing in reports, and which I have subsequently
6 seen as reports that are now available and being used,
7 the ecological response aspect has been dealt with.

8 THE CHAIRMAN: Well, would you say that
9 the use of silvicultural guides, the professional
10 ability of the forester through his own training and
11 access to technical support within the Ministry
12 vis-a-vis various species and site classifications and
13 soil types and information about them would altogether
14 improve the use of the information that's available?

15 Is that a way of going about solving some
16 of your concerns in this area?

17 THE WITNESS: Yes, if I can put a but
18 after that. Particularly in the sense of if you are
19 going to introduce foresters to management by starting
20 them as unit foresters in their first task, some set of
21 guidelines like the guidelines for black spruce or
22 guidelines for the pines and and so on are going to
23 prevent you -- aid the learning process and prevent
24 some major erros while the person learns.

25 Fairly quickly I would hope, a

1 professional would acquire his own feeling for the
2 particular piece of forest that he is working on which
3 is not going to be characterized by a guideline that's
4 made for black spruce in northern Ontario. I may have
5 picked the wrong example, but clearly it is a different
6 species in the east and the west, if you go to the
7 extremes, and they even have separate guidelines now.
8 In fact, I think they do just for that reason.

9 The guidelines are a relatively safe way
10 to start, a good set of -- for a professional to start,
11 but not a good way once you've got a person who has
12 comprehension of the property, he is going to have a
13 much better grasp and go far beyond them in terms of
14 implementation. The example we spoke of earlier was a
15 case where those guys were way beyond the guidelines,
16 the Plonski case.

17 MS. SWENARCHUK: Q. Okay. Just one last
18 question, Dr. Baskerville. You referred on page 83 of
19 the audit to the problems relating to administrative
20 mind set dominating in the Ministry. You said these
21 problems are severe and will be the most difficult to
22 fix, and you then referred to:

23 "The most important remedial step is to
24 establish the Management Unit as the
25 basis of designing, reporting and

1 evaluating management."

2 Are there other steps?

3 Frankly, problem of an administrative
4 mind set seems to me to be a very serious and pervasive
5 problem which would take I think a variety of
6 approaches to correct.

7 Are there other approaches that you have
8 in mind aside from this emphasis on the management
9 unit? How do we get rid of this in any large
10 bureaucracy?

11 A. The last question is perhaps easiest
12 to answer. I doubt if you can eliminate it from the
13 large bureacracy, that is by nature the way
14 bureaucracies operate.

15 If I could rephrase the question
16 slightly. I think what it becomes a matter of is how
17 you design management so that the administrative
18 structure which must function in order to make the
19 public accounting of dollars and cents back so that we
20 have what we require for the auditor general and for
21 all of other things, that has to be there.

22 How do we set it up so that somewhere
23 while that's being done we also get the forest
24 management, and I think that's really the crucial part.
25 And I thought long and hard about that and I guess I

1 concluded -- I don't guess, I did conclude that the
2 most important place to start was in that unit forester
3 level than if the -- at that level, the focus of the
4 system was made sharply, the designing and reporting
5 and evaluating of management, that the system above it
6 at least would have access to the right kinds of
7 material. Right now what is happening is that if that
8 isn't available, the system doesn't require it and it
9 isn't forthcoming, those kinds of elements, it -- I
10 hope it doesn't mean that a parallel bureaucracy has to
11 emerge, but...

12 THE CHAIRMAN: Isn't there a basic danger
13 though in what you are advocating in the sense that if
14 the unit forester is given one of the major
15 responsibilities for having effective timber management
16 occur in the field, that there will be a bias by that
17 unit forester towards timber with less of an emphasis
18 on the other non-timber resources? He is after all a
19 forester.

20 Will there not be suspicions raised in
21 the public's mind that when the unit forester is
22 applying his knowledge and his concepts of management
23 to the forest that, although he may take into account
24 the other non-forest uses, he will be bias towards
25 timber?

1 And if I am correct in that being perhaps
2 a perceived bias, how do you get around that with your
3 emphasis on the unit forester being the effective
4 manager of the forest at the local level?

5 THE WITNESS: I would have added the
6 perceived bias if you hadn't, sir.

7 THE CHAIRMAN: Okay.

8 THE WITNESS: It is there and it will be
9 there.

10 I would suggest that the training,
11 education that a professional forester gets relates to
12 the management of natural systems, systems that respond
13 to intervention. It happens that the forest is the
14 subject, that the principal is management of a natural
15 system. It isn't study of the system, it isn't
16 reporting on parts of it scientifically, the essence of
17 our undergraduate program -- generally undergraduate
18 programs in forestry is different from a science
19 program, for instance, in that rather than talk about
20 the science of a resource, it talks about the
21 management of the resource.

22 So the perception of bias will be there,
23 the risk of bias is real as well because the one thing
24 in this structure that he can manage and demonstrate to
25 himself and to his peers that he has accomplished is

1 the performance of the forest, the timber part of it.

2 So I will accept the risk is there. The
3 greater respect would be not to have somebody at that
4 level who had some interest in trying to manage natural
5 systems and was attempting in fact to control it rather
6 than simply report what happened.

7 THE CHAIRMAN: Okay. Just one step
8 further, though. If there is that risk that you have
9 acknowledged you think is probably there, is it
10 exacerbated if the forester also has the complicating
11 factor of working for industry? We are talking about
12 the industry forester on an FMA.

13 He has two things to worry about
14 presumably, his professional responsibilities, the
15 natural systems that he is concerned about and the
16 well-being supposedly of the industry he works for.

17 THE WITNESS: I'm not sure exacerbated is
18 the word I would have chosen, it is different and it is
19 different in that his focus will be narrower. He
20 enjoys the privilege of managing for timber because the
21 law has decreed that he will not manage for anything
22 else. So that it simplifies his job, he is a timber
23 manager because the law says he can't manage for
24 anything else, that somebody will tell him what to do
25 for those other things.

1 In terms of their responsibility and
2 accountability, it shouldn't be any different.

3 MS. SWENARCHUK: Q. Dr. Baskerville,
4 when you talk about emphasis at the forest management
5 unit level, you aren't eliminating the planning team
6 approach; are you?

7 You are not saying that the forester will
8 manage for timber and nobody is going to say anything
9 about it? You are simply saying that surely that
10 planning team of which the forester is the author of
11 the plan at the unit level should have more
12 responsibility and perhaps independence that it has
13 now; are you not?

14 A. Yes, certainly. If you can recall
15 the last slide in my presentation yesterday where I
16 tried to illustrate the integration and I showed
17 different responses for different treatments using
18 species guilds, so I had a yield curve for timber, a
19 yield curve for deer and one for owls and that sort of
20 thing, in an ideal world what I would like to see is
21 those people sitting at that planning table each with
22 their own set of yield curves and working in a common
23 model trying to design a forest structure, a pattern in
24 that forest of different age classes, of different
25 species mixes that in fact provides the kinds of payoff

1 that they are looking for.

2 So I would not -- I not only would not do
3 away with them, I would empower them greatly.

4 MS. SWENARCHUK: Thank you. Those are my
5 questions.

6 THE CHAIRMAN: Thank you, Ms. Swenarchuk.

7 Ms. Kleer, we could start today, but it
8 is almost five o'clock and I think we will forego your
9 cross-examination until the morning.

10 Just look at it this way, you have now
11 got it prepared instead of having to stay up all night.

12 Very well. We will adjourn today until
13 nine o'clock tomorrow morning. Thank you.

14 ---Whereupon the hearing adjourned at 4:50 p.m., to be
15 reconvened on Wednesday, December 6th, 1989,
16 commencing at 9:00 a.m.

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